

# The Oregon Nurse Retention Project: Final Report



**Oregon Nurse Retention Project**

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A collaborative research effort  
between:



Contributors  
(ONRP Research Team):

Robert R. Sinclair, Ph.D. (Clemson)  
Cynthia D. Mohr, Ph.D. (Portland State)  
Sue Davidson, Ph.D., R.N., CNS (ONA)  
Lindsay E. Sears, M.S. (Clemson)  
Nicole Deese, M.S. (Clemson)  
Robert R. Wright, M.S. (Portland State)  
Melissa Waitsman, B.A. (Clemson)  
Laurie M. Jacobs, M.A. (Portland State)  
David Cadiz, M.S. (Portland State)

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# The Oregon Nurse Retention Project: Executive Summary

- This prospective, longitudinal research addresses 3 needs:
  - Describe both negative and positive work aspects
  - Develop and test an accurate model of nurse retention
  - Provide the literature with potential interventions
- First, four general classes of events were identified
  - Negative: Demands, Conflicts; Positive: Successes, Supports
- Second, the ONRP Model provides a framework
  - E.g., highlights the importance of positive events, as they lead to increased work engagement and less turnover
- Third, nurses provided several suggestions for intervention
  - Increase frequency of positive events and decrease the negative

# Overview

- Aims of the ONRP (Oregon Nurse Retention Project)
- The ONRP Model
- ONRP Research Design
- Participants
- Aim 1 Results
- Aim 2 Results
- Aim 3 Results
- Benefits of Participation in the ONRP
- Conclusion

# Aims of the ONRP

- Aim #1: Describe critical stressors & positive work experiences from nurses' perspective
  - Demands
  - Conflicts
  - Support
  - Success
- Aim #2: Test a new model of nurse retention
  - Oregon Nurses' Retention Model (ONRM)
- Aim #3: Identify workplace interventions

# The Oregon Nurse Retention Project Model

## Organizational Context

Supervisor Support  
Organizational Fairness  
Control and Empowerment Involvement

### Positive Work Experiences

(e.g., Nursing Work)

### Positive Work Reactions

(e.g., Engagement)

### Job & Profession Turnover Pathways

Desirability of Leaving  
Ease of Leaving

### Job & Professional Retention Outcomes

Turnover Cognitions  
Job Search Behavior

### Work Stressors

(e.g., Staffing, Conflict)

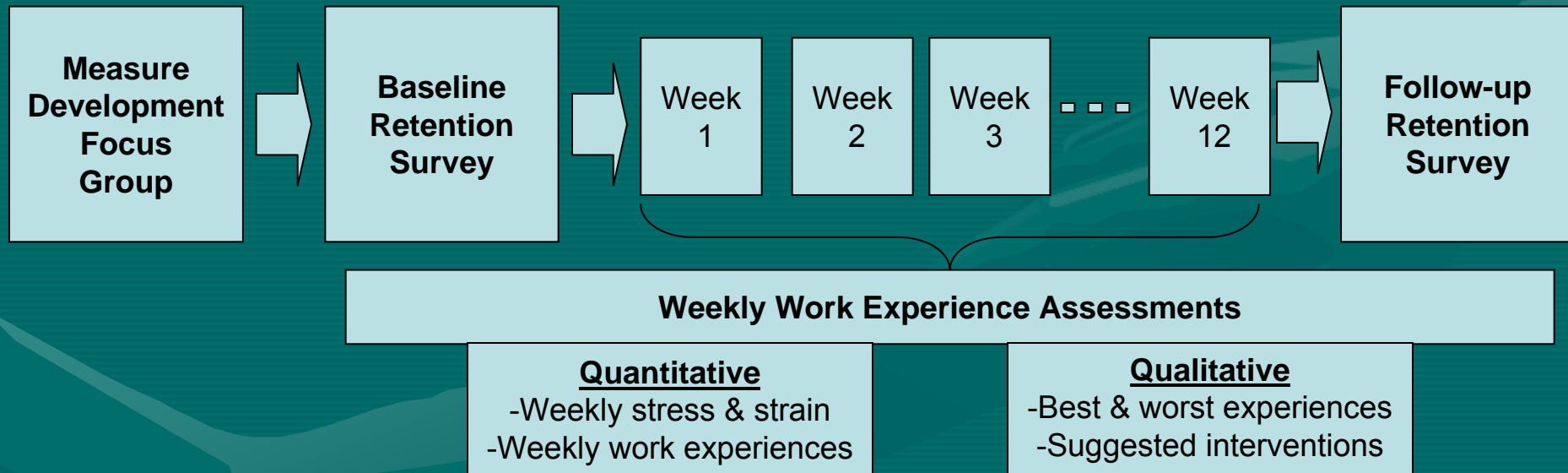
### Negative Work Reactions

(e.g., Strain)

## Individual Differences

Work Experience  
Academic Preparation  
Community Embeddedness

# ONRP Research Design





# Participants in the ONRP

## *ONRP participants' work and demographic characteristics*

	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Age</b>	399	45.75	11.35	22	70
<b>Number of Dependent Children</b>	401	0.74	1.08	0	5
<b>Hour Length of Typical Shift</b>	404	3.58	1.45	1	7
<b>Hours Scheduled</b>	400	32.06	8.20	0	80
<b>Hours Actually Worked</b>	400	35.24	10.31	4	88
<b>Voluntary Overtime Hours per week</b>	389	3.79	5.15	0	36
<b>Number of Shifts Worked per week</b>	393	3.49	1.28	1	16
<b>Occupational Tenure (Years)</b>	405	17.68	12.14	0	45
<b>Years Since Degree</b>	405	17.73	12.23	0	47
<b>Organizational Tenure (years)</b>	404	10.99	9.29	0	38
<b>Position Tenure (years)</b>	406	7.17	7.17	0	33

Note. The figures above are based on available information from Wave 1 participants.

# Participants in the ONRP cont.

Participant Demographics	Frequency	Percent
<b>Gender (N = 402)</b>		
Female	373	92.8
Male	29	7.2
<b>Age (N = 399)</b>		
22 – 29 Years	42	10.7
30 – 39 Years	80	20.1
40 – 49 Years	94	23.6
50 – 59 Years	149	37.3
60 – 69 Years	35	8.8
70 Years	1	.3
<b>Ethnicity (N = 406)</b>		
White	374	92.1
Multi-Ethnic	14	3.4
Asian	9	2.2
Hispanic or Latino/Latina	5	1.2
American Indian/Alaskan Native	2	.5
Native Hawaiian/Pacific Islander	1	.2
Black/African-American	1	.2
<b>Highest Educational Degree (N = 405)</b>		
Diploma in Nursing	26	6.4
Associates in Nursing	135	33.3
Associates, Non-Nursing	1	.2
Bachelors in Nursing	174	43.0
Bachelors, Non-Nursing	44	10.9
Masters in Nursing	13	3.2
Masters, Non-Nursing	9	2.2
Doctorate in Nursing	1	.2
Doctorate, Non-Nursing	2	.5
<b>Relationship Status (N = 403)</b>		
Married	272	67.5
Widowed	6	1.5
Divorced or Separated	53	13.2
Never Married	39	9.7
Living with Significant Other	30	7.4
Domestic Partner	3	.7

# Aim #1: Describing Critical Stressors and Positive Work Experiences

Using the responses from the nurse participants, we generated 4 broad categories:

- **Demands:**
  - Work role demands (lack of role clarity)
  - Difficult patients and families
  - Staffing demands (insufficient staff)
- **Conflicts:**
  - Coworkers
  - Physicians
  - Other hospital staff
- **Success:**
  - Events related to professional development (learning new skills)
  - Programs and processes (organizational systems working properly)
  - Opportunities to make a difference in other people's lives (saving lives, relieving pain, etc.)
- **Support:**
  - Receiving support from coworkers, helping others, feeling appreciated by patients

# Aim #1: Describing Critical Stressors and Positive Work Experiences

*A taxonomy of work experiences*

	Positive Events	Negative Events
Performance-related events	Successes	Demands
Work context-events	Supports	Conflicts

	Mean	Standard Deviation	Minimum	Maximum
Support	.85	.30	.11	1.88
Success	.73	.28	.14	1.70
Demands	.27	.23	.00	1.24
Conflicts	.13	.16	.00	1.11

*Frequency of each type of work experience*

Note: Frequencies are taken across all shifts for each week, so that 0 = event never occurred, 1 = event occurred sometimes, and 2 = event occurred always. Minimum and maximum numbers represent the lowest and highest weekly frequency across all weeks and all participants.

# Aim #1 Negative Experiences: Demands Nurses Described

Event (abbreviated versions)	Type	Mean	SD	Min.	Max.
Equipment problems	Demand	.61	.48	.00	2.00
Not enough time for tasks	Demand	.51	.46	.00	2.00
Information problems	Demand	.46	.43	.00	1.73
Not enough staff	Demand	.33	.38	.00	1.38
Not enough RNs	Demand	.30	.38	.00	1.50
Patient declined unexpectedly	Demand	.25	.31	.00	1.60
Staff skills lacking	Demand	.25	.34	.00	1.50
Staff experience lacking	Demand	.25	.33	.00	1.25
Staff late/absent	Demand	.25	.31	.00	1.50
Patient failed to improve (felt helpless)	Demand	.24	.34	.00	1.70
Patient conflict	Demand	.19	.28	.00	1.55
Work too demanding	Demand	.17	.28	.00	1.60
Staff request denied	Demand	.14	.29	.00	2.00
Staff approved but late	Demand	.08	.21	.00	1.50
Care conflicted with my values	Demand	.04	.12	.00	1.00

Note: Frequencies are taken across all shifts for each week, so that 0 = event never occurred, 1 = event occurred sometimes, and 2 = event occurred always. Minimum and maximum numbers represent the lowest and highest weekly frequency across all weeks and all participants.

# Aim #1 Negative Experiences: Conflicts Nurses Described

Event (abbreviated versions)	Type	Mean	SD	Min.	Max.
Coworker conflict	Conflict	.24	.27	.00	1.20
Micromanaged	Conflict	.21	.34	.00	1.90
Physician conflict	Conflict	.15	.24	.00	1.30
Manager conflict	Conflict	.11	.21	.00	1.50
Discrimination	Conflict	.03	.12	.00	1.00
Sexual harassment	Conflict	.02	.12	.00	1.00

Note: Frequencies are taken across all shifts for each week, so that 0 = event never occurred, 1 = event occurred sometimes, and 2 = event occurred always. Minimum and maximum numbers represent the lowest and highest weekly frequency across all weeks and all participants.

# Aim #1 Positive Experiences: Supports Nurses Described

Event (abbreviated versions)	Type	Mean	SD	Min.	Max.
Provided emotional support	Support	1.70	.32	.89	2.00
Coworkers worked well as a team	Support	1.62	.34	.50	2.00
Coworkers shared a laugh	Support	1.61	.39	.20	2.00
I helped a fellow nurse	Support	1.40	.45	.17	2.00
My unit members were nice to each other	Support	1.38	.51	.00	2.00
A patient thanked me	Support	1.21	.54	.00	2.00
A patient's family thanked me	Support	1.11	.50	.00	2.00
Another nurse helped me when needed	Support	1.08	.49	.00	2.00
A coworker thanked me	Support	1.03	.52	.00	2.00
I shared knowledge with a coworker	Support	1.01	.52	.00	2.00
Another nurse shared knowledge	Support	0.88	.51	.00	2.00
Developed close bond with a patient	Support	0.86	.55	.00	2.00
Coworker complimented my work	Support	0.86	.49	.00	2.00
I supported a coworker emotionally	Support	0.85	.50	.00	2.00
A charge nurse thanked me	Support	0.57	.49	.00	2.00
A physician thanked me	Support	0.56	.50	.00	2.00
Coworker gave helpful feedback	Support	0.53	.45	.00	1.90
Physician complimented my work	Support	0.52	.47	.00	1.90
A physician helped me when needed	Support	0.40	.40	.00	2.00

Note: Frequencies are taken across all shifts for each week, so that 0 = event never occurred, 1 = event occurred sometimes, and 2 = event occurred always. Minimum and maximum numbers represent the lowest and highest weekly frequency across all weeks and all participants.

# Aim #1 Positive Experiences: Successes Nurses Described

Event (abbreviated versions)	Type	Mean	SD	Min.	Max.
Helped patient feel better	Success	1.38	.49	.00	2.00
Educated patient about condition	Success	1.23	.54	.00	2.00
Made a difference in someone's life	Success	1.09	.57	.00	2.00
Overcame a challenge	Success	0.73	.54	.00	2.00
Coworker taught me a technique	Success	0.47	.45	.00	1.90
Implemented a challenging procedure	Success	0.46	.48	.00	2.00
Figured out difficult task	Success	0.38	.42	.00	1.90
Coworker taught me to deal with people	Success	0.38	.42	.00	1.90
Helped save a life	Success	0.34	.48	.00	2.00
Taught patient complex self-care	Success	0.27	.41	.00	1.91
Patient unexpectedly improved	Success	0.19	.29	.00	1.20
Helped patient die with dignity	Success	0.08	.21	.00	1.78

Note: Frequencies are taken across all shifts for each week, so that 0 = event never occurred, 1 = event occurred sometimes, and 2 = event occurred always. Minimum and maximum numbers represent the lowest and highest weekly frequency across all weeks and all participants.



# Aim #1: Predictors of Work Experiences

## *Organizational and individual predictors of work experiences*

Predictors	Work Experiences			
	Successes	Supports	Demands	Conflicts
<b>Individual differences (<math>\beta</math>)</b>				
Occupational Tenure	-.07	-.01	-.09	.06
Education Level	-.02	-.02	-.06	-.06
Affective Community Commitment	.11	.07	-.01	-.00
Continuance Community Commitment	.02	-.06	.09	-.04
<b>Occupational context (<math>\beta</math>)</b>				
Decision Involvement	.02	<b>.14*</b>	-.09	.01
Method Control	.09	.05	<b>-.14**</b>	-.08
Work Schedule Control	<b>-.17**</b>	.01	<b>-.13**</b>	<b>-.12*</b>
Perceived Organizational Support	-.07	.05	<b>-.28**</b>	-.08
Perceived Physician Support	.07	<b>.13**</b>	-.02	<b>-.24**</b>
Perceived Coworker Support	.09	<b>.39**</b>	-.06	<b>-.22**</b>
Perceived Manager Support	-.01	.04	.02	<b>-.24**</b>
<b>Variance Explained (<math>R^2</math>)</b>	<b>.06*</b>	<b>.38**</b>	<b>.29**</b>	<b>.47**</b>

Note. All Predictors are measured at Wave 1. All outcomes are measured at Wave 2.  $\beta$  = standardized regression weight. \*  $p < .01$ ; \*\*  $p < .05$ .

# Aim #2: Testing a New Nurse Retention Model

- Oregon Nurse Retention Model (ONRM)
  - The more success and support nurses receive is associated with higher job engagement and organizational commitment
  - The more demands and conflicts nurses experience the higher the association of burnout
  - Hospitals should create more positive experiences while eliminating negative experiences

# Aim #2: Testing a New Nurse Retention Model

## Organizational and individual predictors of work reactions

Predictors	Work Reactions	
	Burnout	Engagement
<b>Individual differences (<math>\beta</math>)</b>		
Occupational Tenure	<b>-.13*</b>	.08
Education Level	-.02	-.03
Affective Community Commitment	-.02	<b>.18**</b>
Continuance Community Commitment	.08	-.09
<b>Occupational context (<math>\beta</math>)</b>		
Decision Involvement	.09	-.02
Method Control	-.11	.12
Work Schedule Control	.03	-.05
Perceived Organizational Support	<b>-.29**</b>	<b>.21**</b>
Perceived Physician Support	-.07	-.01
Perceived Coworker Support	-.07	.10
Perceived Manager Support	-.01	-.01
<b>Variance Explained (<math>R^2</math>)</b>	<b>.16**</b>	<b>.15**</b>

Note. All Predictors are measured at Wave 1. All outcomes are measured at Wave 2.  $\beta$  = standardized regression weight. \*  $p < .01$ ; \*\*  $p < .05$

# Aim #2: Testing a New Nurse Retention Model cont.

## Organizational and individual predictors of commitment

Predictors	Occupational and Organizational Commitment			
	Affective Occupational Commitment	Continuance Occupational Commitment	Affective Organizational Commitment	Continuance Organizational Commitment
<b>Individual differences (<math>\beta</math>)</b>				
Occupational Tenure	.02	.09	.00	.11*
Education Level	-.09	-.08	-.08	-.02
Affective Community Commitment	.13*	-.17**	.17**	-.12*
Continuance Community Commitment	.02	.31**	.03	.34**
<b>Occupational context (<math>\beta</math>)</b>				
Decision Involvement	.12	.12	.05	.04
Method Control	.05	-.12	-.10	-.04
Work Schedule Control	.01	-.05	.01	-.07
Perceived Organizational Support	-.03	-.15*	.41**	-.12
Perceived Physician Support	.08	-.02	-.02	.02
Perceived Coworker Support	.20**	.05	.11	.01
Perceived Manager Support	-.09	.05	.04	.04
<b>Variance Explained (<math>R^2</math>)</b>	.12**	.17**	.29**	.16**

# Aim #2: Testing a New Nurse Retention Model cont.

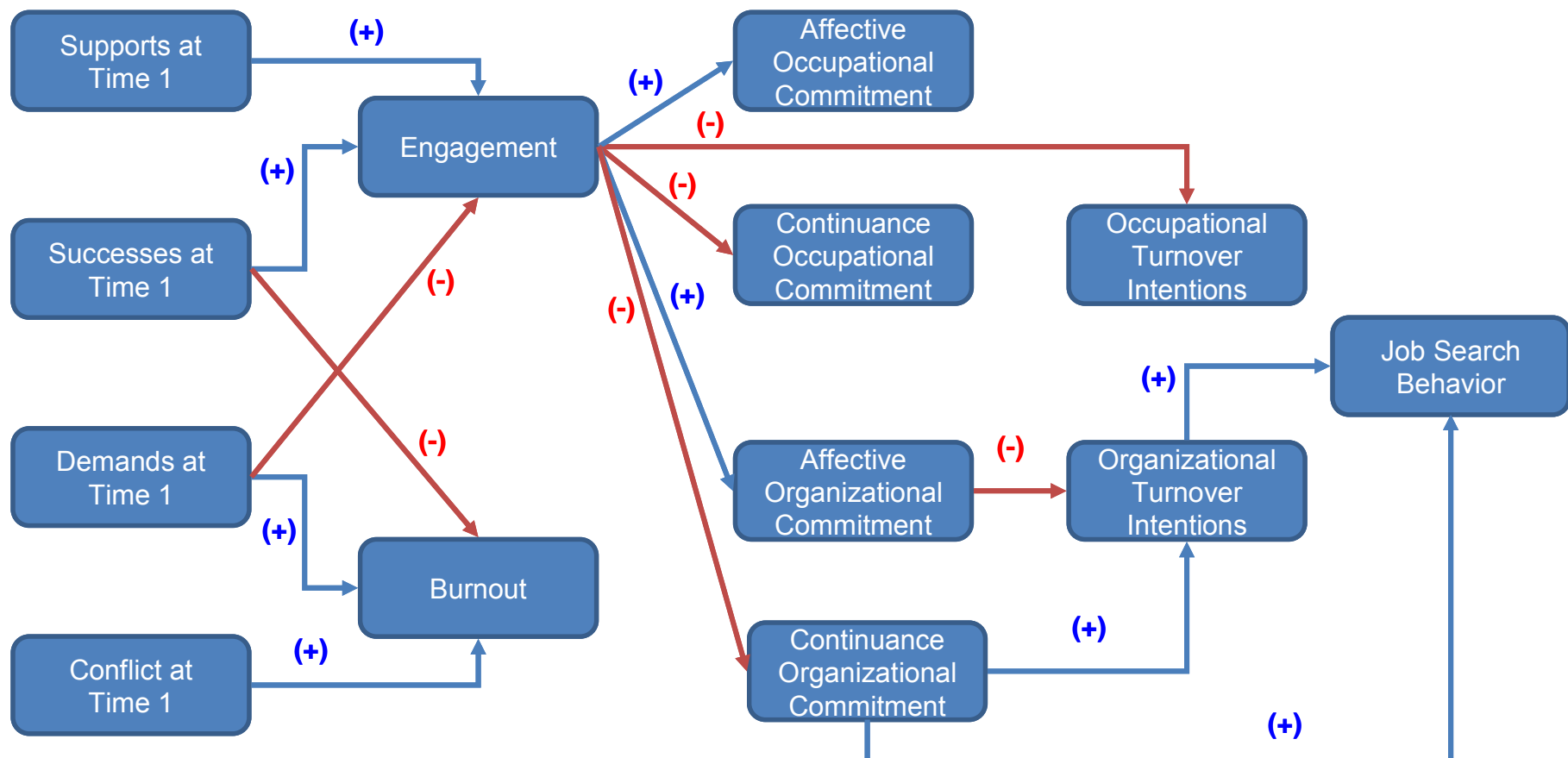
## Organizational and individual predictors of retention outcomes

Predictors	Retention Outcomes		
	Occupational Turnover Intentions	Organizational Turnover Intentions	Job Search Behavior
<b>Individual differences (<math>\beta</math>)</b>			
Occupational Tenure	.04	-.09	-.11
Education Level	-.01	.01	-.02
Affective Community Commitment	-.07	-.02	-.04
Continuance Community Commitment	.04	.00	-.04
<b>Occupational context (<math>\beta</math>)</b>			
Decision Involvement	.02	.04	.00
Method Control	-.12	-.09	.04
Work Schedule Control	-.03	-.04	<b>-.20**</b>
Perceived Organizational Support	-.08	<b>-.22**</b>	-.11
Perceived Physician Support	-.10	-.01	-.02
Perceived Coworker Support	-.02	-.06	-.07
Perceived Manager Support	-.12	-.11	-.02
<b>Variance Explained (<math>R^2</math>)</b>	<b>.11**</b>	<b>.16**</b>	<b>.11**</b>

# Aim #2: Final ONRP Model

## Showing Significant Structural Paths

This depicts relationships between the variables (e.g., Supports positively relate to Engagement)



Note. All measures gathered at Time 2 unless noted. Analyses control for Time 1 commitment, turnover intentions, and job search behavior. Blue arrows denote positive relationships, while red arrows denote negative relationships.  $CFI = .95$ ,  $RMSEA = .05$ ,  $SRMR = .07$ .

# Aim #3: Nurse Recommendations for Interventions

- Nurses who participated provided weekly work experiences and recommended changes to increase positive experiences and decrease negative experiences

# Aim #3: Nurse Recommendations for Interventions

Category	Examples
Promote the value of nursing	Encourage physicians to value nurses Increase awareness of nurses' contributions
Develop/enforce policies, laws, and rules	Define and respond to improper conduct Follow existing rules, policies, laws
Clarify role responsibilities	Performance evaluations with follow-up Increase accountability
Increase nurse participation	Participative decision making Increase voice
Improve communication systems and skills	Across shifts Across units/levels
Provide training/development	Interpersonal skills, communication skills Professional development programs
Improve staffing management	More staff; better staff mix Increased staff during changes
Remove performance constraints	Quality and quantity of equipment and supplies Computer technology issues
Reward good practices	Provide positive feedback Recognition programs
Do nothing	Good events: no changes are needed Bad events: nothing to be done other than to quit



# Benefits of Participation in the ONRP

## *Benefits of participation in overall and weekly work experience study*

	Benefits of Overall Research	Benefits of Weekly Research Participation		
	All <sup>1</sup>	All Weekly <sup>2</sup>	1 – 7 Weekly Surveys <sup>3</sup>	8 – 12 Weekly Surveys <sup>4</sup>
I gained insight about my experiences from participation.	3.55	3.82	3.41	3.90
I gained something positive from participating.	3.73	3.88	3.52	3.96
I found participating beneficial to me.	3.66	3.82	3.41	3.92
I found participating in this study personally meaningful.	3.66	3.83	3.41	3.93
<b>Total Score (Mean of 4 items)</b>	<b>3.65</b>	<b>3.83</b>	<b>3.43</b>	<b>3.93</b>

Note. People who completed more weekly surveys reported significantly higher benefits for all items shown in the table (i.e., comparing the figure in the middle column to the figure in the right column for each row).

<sup>1</sup>N = 343-346; <sup>2</sup>N = 128-130; <sup>3</sup>N = 21-22; <sup>4</sup>N = 100-101.

# General Conclusions

- Work experiences influence turnover outcomes through their relationship with engagement and subsequently with organizational commitment
- Engagement is more important than burnout as a reaction to work events and the benefits of positive work experiences stem from effects of engagement
- Organizational commitment is more important than occupational commitment as an antecedent to turnover

# General Conclusions

- Positive experiences are not simply the absence of bad experiences, but rather contribute to nurses occupational health and retention outcomes above and beyond the negative experiences
- Nursing work can be incredibly rewarding, nurses have more good experience than bad at work
- Internet-based stress management interventions asking nurses to write about their work experiences are valuable

# General Conclusions

- Nurses' interactions with their colleagues and patients are normally incredibly rewarding
- Nurses care about their professional growth as well as their efforts to develop top quality patient care

A website has been created to disseminate the results of the research to the larger nursing community:

[www.onrp.webnode.com](http://www.onrp.webnode.com)