



# The Staffing Climate in Nursing: Concept and Measurement

Holly A. De Groot, PhD, RN, FAAN  
Chief Executive Officer

Laura O. McIntosh, MS, RN  
Senior Research Consultant  
Catalyst Systems, LLC

*Evidence-Based Decisions In Healthcare*<sup>®</sup>



# Keeping Patients Safe: Transforming the Work Environment of Nurses

IOM, 2004



Until now, one of the central work environment related knowledge gaps involved the staffing climate.



# What is the Staffing Climate?



## The Staffing Climate in Healthcare:

“a constellation of employee perceptions about the allocation and utilization of human resources necessary for patient care, patient safety, and positive patient outcomes.”

DeGroot and McIntosh, 2011



## The Staffing Climate in Healthcare:

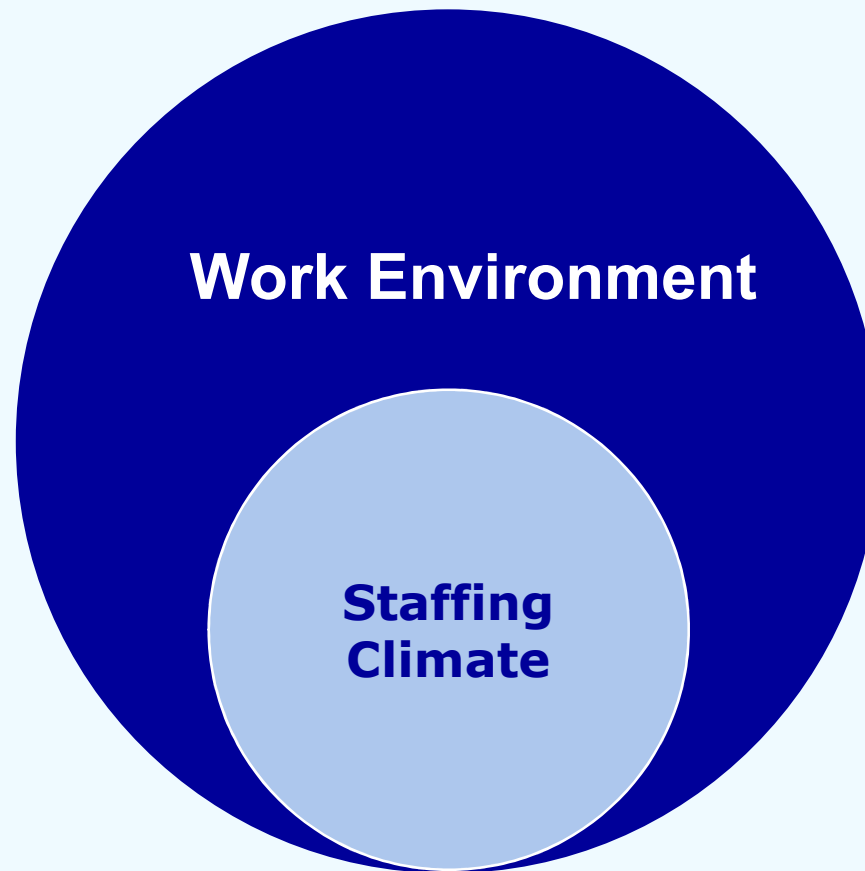
“involves attitudes, beliefs, experiences, and behaviors related to decision-making practices, processes, and procedures that are rewarded, supported, and expected in the workplace.

The Staffing Climate is comprised of three dimensions, including Staffing Adequacy, Care Quality, and the Care Climate.”

DeGroot and McIntosh, 2011



# Staffing Climate





# Staffing Climate Model







# Methods



## *SCS™ Survey Development*

- Started with items from the *Perception of Staffing Adequacy® Questionnaire*
- Added items based on literature review results from other Catalyst studies, and experience with healthcare organizations.
- Created demographics, including items on current trends.



## *SCS™ Survey Description*

- First of its kind measure designed to tap work related factors beyond the number of staff that affect nurses perceptions of the staffing climate on individual units or service areas.
- Includes such elements as teamwork, co-worker expertise, handoff communications, support from other departments, staffing, skill mix, patient turnover, acuity, and other related staffing, patient care, quality issues.



## *SCS™ Survey Settings*

- Eight acute care organizations, including academic medical center, community and county hospitals.
- Facilities with specialty focus included acute rehab, pediatrics, and mental health.
- Four Magnet® designated organizations, and one on the journey.



## SCS™ Survey Sample

- 2,312 English speaking RN volunteers
- Exempt IRB status because of anonymity and minimal risks



## *SCS™ Survey Instrument*

- 72 items pilot tested, revised, retested
- Items were added, deleted, or changed based on data analysis
- The information reported here is the outcome of that process



## *SCS™ Survey Procedures*

- Three week online administration period
- Turnkey process, including flyers, email text and information sheets
- Introduced by CNOs
- Survey access by participant code card to log onto the Catalyst survey site



# *SCS™ Survey Procedures*

## **Continued**

- Contact was maintained with each organization throughout the survey
- Response rate updates provided bi-weekly





# *SCS™ Survey Procedures*

## **Continued**

- After the survey, data were downloaded into SPSS (v. 17) for cleaning and analyses
- Factor analytic procedures performed
- Principal Axis Factoring with Varimax rotation
- Cronbach's alphas calculated on the scales that emerged



# Results



## *SCS™ Survey Sample*

- Average participant age= 39.8 (SD=11)
- Years licensed as an RN= 11.8 (SD=8.5)
- Organizational tenure= 8.7 years (SD=8.5)
- 89% were Staff Nurses
- 87% were female



## *SCS™ Survey Sample*

### **Continued**

- 85% had highest degree in nursing
- 47% had Bachelor's degree for basic nursing education
- 43% were Associate degree prepared
- 76% completed basic nursing education in the US



# *SCS™ Survey Sample*

## **Continued**

- 83% worked full time
- 50% worked on the Day shift
- 78% worked 12 hour shifts



## *SCS<sup>TM</sup> Survey Scales*

- Three scales with eigenvalue  $> 1$
- Principal Axis factoring procedures, with Varimax rotation



## Scale 1: *Staffing Adequacy*

- 11 items and Cronbach's alpha of .88
- Likert scale, 1= Strongly Disagree to 5= Strongly Agree
- 2 items reverse coded
- Items summed for Staffing Adequacy score
- Higher scores reflect more favorable Staffing Adequacy perceptions



## Scale 2: *Care Climate*

- 8 items, Cronbach's alpha = .90
- 0-10 scale, with 0 = Strongly Disagree and 10 = Strongly Agree
- One item reverse coded
- Items summed for Care Climate score
- Higher score = more positive Care Climate perceptions





## Scale 3: *Care Quality*

- 9 items, Cronbach's alpha = .94
- 5 point Likert scale with 1=Poor, 5=Excellent
- Items summed for Care Quality score
- Higher score = more positive Care Quality perceptions



## ***Additional Psychometric Evaluation***

- Predictive analysis performed
- Convergent and divergent validity
- Test-retest evaluation
- Confirmatory Factor analysis



## The *SCS*<sup>™</sup> Survey: What Clients Say

“...this survey is an exceptional tool that provides input from the nursing workforce about their environment of practice.”

“This is one very important tool that helps us to build the healthiest practice setting for our nurses. In doing this, the quality of care to our patients and families soar.”



## The *SCS*<sup>™</sup> Survey: Additional Client Comments

“The (survey) questions complement our Employee Opinion Annual Survey. I find the questions on the...survey more nurse centric, thus offering a stronger tool as it relates to our practice environment.”



## *SCS<sup>™</sup> Staffing Climate Survey*

- Valid, reliable, relevant
- Unit, organization, system results
- Benchmark comparisons
- Timely, actionable data
- New evidence-base for decisions



“It is a capital mistake to theorize before you have all the evidence.”

Sir Arthur Conan Doyle



## Contact Information:

[hdegroot@catsys.com](mailto:hdegroot@catsys.com)

