Nurse Family Presence Beliefs and Decisions in Adult ICUs

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Purpose and Objectives

Purpose
To advance understanding and/or execution of open family presence (FP) in adult ICUs.

Objectives
1. To identify select social, personal and situational factors related to FP decisions made by adult ICU nurses.
2. To identify facilitators and barriers related to nurse decision-making regarding FP in adult ICUs

No disclosures or conflict of interest
STATE OF SCIENCE

- Restricted visiting on-going
  - Results of research
  - Variability within hospitals
- International problem
- Family-centered care hospital philosophy unfolding
- Professional organizational advocacy, governmental support, consumer interest and support
- Nurse and physician concerns
PROBLEM and GAPS

- Continuing lack of FP support from nurses
  - Interferes with delivery of quality care (nurses are pivotal to quality care)
  - Nurses are the gate keepers (FP won’t happen without nurse leadership/involvement)

- Significant nurse FP behavioral determinants have not been identified
  - Identification will focus change strategies

- Potential unconscious racial bias
  - Unrelenting health disparities stimulating new directions related to assessment of clinician-patient interactions, nursing and physician care processes
  - More focus on “aversive” racism

- Limited number of studies conducted related to adult ICUs
  - Methodological issues
  - Studies primarily focused on FP during resuscitation
The purpose of this study was to explore nurse beliefs and other influencing variables related to FP intentions and decisions made by nurses, who work in adult ICUs. Relations and mediated influences were examined between behavioral beliefs, and social, personal, and situational variables of nurse-reported FP intentions and decisions.*

* Mediation outcomes will not be discussed in presentation.
Theoretical Framework
Theory of Planned Behavior

The underpinning focal points of TPB:

- intention is the immediate antecedent of behavior and is determined by attitude toward the behavior, subjective norms, and perceived behavioral control factors.

- behavioral, normative and control beliefs stimulate attitudes, subjective norms and perceived control, all of which can vary based on the influences of background variables.

- each sequential step in model uncovers more understanding of the behavioral determinants and behavior.

- The concept map (Figure 2) and theoretical substruction (not shown) based on the TPB, (Ajzen, 1991) guided the conceptualization of the research purpose and methods. They brought clarity to the overall research process through schematical illustration of the congruence between theoretical and operational components.

Ajzen, 1991
Figure 2. Theory of Planned Behavior Concept Map of Family Presence in Adult ICU
METHODS

- Design: Cross-sectional relational
- Setting: Internet study via SurveyMonkey
- Sample: nurses who worked in US adult ICUs
- Recruitment: Via AACN Website, AACN e-Newsletter (sent to all AACN members) and AACN Face Book page
- All consent processes and IRB approvals obtained
METHODS: INSTRUMENTS

- Demographic Profile
- Adult Intensive Care Unit Family Presence Questionnaire (AICUFPO)
  - Researcher developed tool based on TPB
    - Likert-type scale
    - Response items ranged from 1 (strongly disagree) to 7 (strongly agree)
  - Content validity established via use of experts
  - Pilot of questionnaire conducted
**Factor Analysis:** Adult Intensive Care Unit Family Presence Questionnaire

- Principal Component Factor Analysis, Varimax Rotation with Kaiser Normalization conducted
- Minimum Eigen value of 1 and maximum number of iterations of 25
- Ten Factors Identified – four factors and three survey items used for analyses

**Mediators:**
- Factor 1: Positive Behavioral Belief Scale $\alpha = .94$
- Factor 2: Negative Behavioral Belief Scale $\alpha = .92$

**Outcome Measures:**
- Factor 5: Restrictive Intent Scale (RIS) $\alpha = .75$
- Factor 7: Positive Intent Scale (PIS) $\alpha = .68$
DATA ANALYSIS

- SPSS version 20
- T-tests
- Spearman’s Rho Correlation
- Stepwise Regression
SAMPLE OBTAINED

- 719 nurses responded
  - 1 only did one question; 38 did not go beyond first 9 demographic questions; thus, 39 not useable

- Total N = 680

- Gender:
  - Females n=617 (91%)
  - Males n=59 (9%)
SELECT SAMPLE CHARACTERISTICS

- **Age:** 40% aged 50 or older

- Proportionally more females in older age groups
  - 65% of females were 40 years or older compared to 57% of males 40 years or over
  - 34% of females in 50-59 age group compared to 22% of males
  - 14% of females in over age 60 group compared to 7% of males

- **Race:**
  - Caucasian (85.5%)
  - Non-Caucasian (14.5%)
SELECT SAMPLE CHARACTERISTICS

- **Education**: Baccalaureate degree (51.9%)

- **Nurse Role**: Staff nurse (66.3%)
  
  (57% of nurses spent 60-100% of time providing direct care)

- **Critical Care Certified**
  
  - Certified: 53.6%; Not certified: 46.4%

- **Policy Type**:  
  
  - Open visiting (45.3%)
  
  - Not Open visiting (54.7)

- Unit has no specific times when visitors are not allowed (47.9%)
## SAMPLE CHARACTERISTICS and OUTCOME VARIABLES

### Table 3. Scale/Item Descriptives.

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<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td><strong>FP Predictor Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Have skills/ knowledge to Help Families</td>
<td>603</td>
<td>1</td>
<td>7</td>
<td>6.19</td>
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<tr>
<td>Families help patient with medical info.</td>
<td>645</td>
<td>1</td>
<td>7</td>
<td>4.66</td>
<td>1.72</td>
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<td>Open visiting good for Patient Recovery</td>
<td>662</td>
<td>1</td>
<td>7</td>
<td>4.73</td>
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<td>Open visiting/ FP decreases Family Anxiety</td>
<td>626</td>
<td>1</td>
<td>7</td>
<td>5.26</td>
<td>1.59</td>
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<td>May restrict visiting due to Space Concerns</td>
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<td>7</td>
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<td>Open visiting/FP increases Family Satisfaction</td>
<td>608</td>
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<td>7</td>
<td>5.46</td>
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<td>Open visiting/FP saves Nurse Time</td>
<td>602</td>
<td>1</td>
<td>7</td>
<td>5.79</td>
<td>1.59</td>
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<td><strong>FP Mediator Measures</strong></td>
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<td>Positive Behavioral Belief Scale (PBBS)</td>
<td>645</td>
<td>1.50</td>
<td>6.89</td>
<td>4.75</td>
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<td>Negative behavioral Belief Scale (NBBS)</td>
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<td>7.00</td>
<td>4.85</td>
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<td><strong>FP Outcome Measures</strong></td>
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<td>Restrictive Intent Scale (RIS)</td>
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<td>7.00</td>
<td>4.23</td>
<td>1.55</td>
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<td>Positive Intent Scale (PIS)</td>
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<td>7.00</td>
<td>4.96</td>
<td>1.65</td>
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<tr>
<td>Prior Non-Restrictive FP Decisions</td>
<td>613</td>
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<td>7</td>
<td>6.23</td>
<td>1.32</td>
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<td>Restrictive FP</td>
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<td>7</td>
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<td>Open Visitation Index Score</td>
<td>630</td>
<td>1.00</td>
<td>7.00</td>
<td>5.00</td>
<td>1.77</td>
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SELECT CHARACTERISTICS and OUTCOME VARIABLES

- 75.4% of nurses agreed that there should be some limits on visitation and had previously allowed open FP
- 75.4% of nurses agreed that open FP reduced family anxiety
- 77.5% of nurses believed open FP increased family satisfaction
- 86.4% of nurses felt open FP increased nurse time required with family
  - 59.4% of nurses do not routinely allow open FP
  - On average nurses allow open FP 59-74% of the time
Results of Hypotheses

Measured by:

- Five outcome measures
  - Restrictive Intent Scale (RIS)
  - Positive Intent Scale (PIS)
  - Prior Non-Restrictive FP Decisions
  - Restrictive FP
  - Open Visitation Index Score
- Positive Behavioral Belief Scale Score
  - Positively-oriented nurse held perceptions of FP decisions and intentions.
- Negative Behavioral Belief Scale Score
  - Negatively-oriented nurse held perceptions of FP decisions and intentions
Select Hypothesis Results

Significant relations between age and FP outcome measures:

- Restrictive Intent Scale ($r_s = -.191, p<.001$)
- Positive Intent Scale ($r_s = .113, p<.006$)
- Prior Non-Restive FP Decisions ($r_s = .197, p<.001$)
- Restrictive FP ($r_s = -.224, p<.001$)
- Open Visitation Index Score ($r_s = .216, p<.001$)

Older nurses made and planned to make less restrictive decisions and agreed less that there should be limits on FP.

Relations between race and FP outcome measures

- Only the following two measures were statistically significant
  - Restrictive Intent Scale ($t=2.113, p=.035$)
  - Restrictive FP item ($t=3.303, p=.001$)

Caucasian nurses reported less restrictive intent, less belief that FP should be restricted and overall, more positive FP beliefs than non-Caucasian nurses.
Continued Hypothesis Results

Significant relations between education and FP outcome measures:

- Restrictive Intent Scale ($r_s = -0.255, p<0.001$)
- Positive Intent Scale ($r_s = 0.165, p<0.001$)
- Prior Non-Restive FP Decisions ($r_s = 0.124, p<0.002$)
- Restrictive FP ($r_s = -0.278, p<0.001$)
- Open Visitation Index Score ($r_s = 0.240, p<0.001$)

Nurses with higher education levels were more positive about FP; the more likely they were to have engaged in less restrictive FP behavior, the less restrictive they intended to be in the future.
Continued Hypothesis Results

Relations between certification and FP outcome measures
- Four measures were statistically significant and showed certified nurses had
  - Less restrictive intent ($t=3.609, p<.001$)
  - Made increased prior Non-restrictive FP Decisions ($t=-2.200, p=.028$)
  - Less restrictive FP limits ($t=3.917, p<.001$)
  - A higher Open Visitation Index Score ($t=-3.292, p<.001$)

Positive and Negative Behavioral Belief Scores
Certified nurses reported more positive views toward family presence than non-certified nurses
- significant correlation between certification and PBBS ($t=4.07, p<.001$),
- significant correlation between certification and NBBS ($t=-4.00, p<.001$),
Continued Hypothesis Results

Significant relations between past experiences and FP outcome measures:

- Was solely related to only the Open Visitation Index ($r_s = .121$, $p = .002$).
- There was no relations between past experience as a patient or family member and the other four FP outcome measures.

The more experience as a patient or as a family member, one has, the more likely a nurse is to allow open FP.
Continued Hypothesis Results

- Significant relations of nurse perceptions that FP was related to family satisfaction was identified by all five outcome variables.
- All outcome variables were significantly related to nurse perception of increased family satisfaction with FP.
Conclusions

- Social factors (age, education, certification), personal factors (past experience as an ICU patient or family member), and situational factors (e.g., perceived benefits of FP) do positively influence behavioral beliefs—which in turn (as predicted by the TPB) influence intention and behavior.

- Interestingly, gender and race did not play significant roles.

- Older, more educated, and certified nurses reported more positive beliefs, intentions, and decisions regarding family presence.
Conclusions

- Nurses’ perception of having greater skills and knowledge in supporting families’ emotional needs positively influences their reported past and future intentions and behavior related to FP.

- Nurses view themselves as having the Key Role in determining family presence and visitation as opposed to patient, family, or other health care team members.

- While almost half of the nurse respondents reported they work in units with open visiting, it is not clear they all had the same view of what “open visiting” means and many expressed beliefs in visiting limitations.
Strengths of the Study

- Study was a national survey with a sample size higher than most studies of ICU nurses.
- Support from the American Association of Critical Care Nurses gave additional visibility and gave added prominence to the study.
- The majority of the respondents were staff nurses who were involved in direct patient care.
- Use of internet allowed access to a large sample over a short period of time. Also allowed respondents to respond anonymously and to complete the questionnaire at a time and place convenient for them.
- Study and questionnaire was guided by theory and utilized sophisticated data analysis procedures.
Limitations of the Study

Several factors influence the external validity of the study:

- A convenience sample drawn from AACN members limits generalizability of the results.
- The sample skew toward older, more educated, high number of certified nurses may reflect those nurses more likely to join a professional organization and to participate in a study.
- Use of the internet for data collection may have affected results as not all nurses have access to the internet.
- A question regarding geographical region was left off thus there is no way to determine national geographical representativeness.