The Relationship Between Supervisor Support and Registered Nurse Outcomes in Nursing Care Units

Debra S. Hall, PhD, RN, CCRN

Workplace social support is a major characteristic related to the Job Demand-Control model of job stress. Organizational and managerial support have an effect on nurse satisfaction and burnout. The relationships between perceived supervisor support and measures of nurse occupation-related outcomes were investigated in 3 nursing units within an academic medical center. Nurses with greater levels of perceived supervisor support experienced more positive job outcomes and less negative outcomes, including less occupational stress, than nurses with less perceived supervisor support. Implications for refocusing the role of the nurse supervisor and its effect on multiple nursing occupation-related outcomes are discussed. Key words: coping, job control, occupational stress, social support

REGISTERED NURSES (RNs) are the single largest occupational category in the healthcare system, but the shortage of RNs has become an issue of national importance, linked with poorer patient outcomes.¹ Reasons for this shortage include work stress, physical demands/workload, lack of advancement opportunities, and low pay.² Occupational stress has been related to job control and social support, and the remaining 3 factors have been related to job satisfaction, job retention, and worker health.³⁴ Managerial support has demonstrated a strongly positive effect on affect, well-being, and coping of nurses, particularly when manager support is related to empowerment.⁵

REVIEW OF THE LITERATURE

Occupational stress has been defined as harmful physical and emotional responses to job requirements that do not match the capabilities, resources, or needs of the worker.⁶ Coping has been defined as efforts by the body and mind to manage environmental and internal demands and conflicts among them that exceed the individual’s resources.⁷

Karasek’s model of Job Demand-Control hypothesizes that levels of job control and job demands interact to determine work-related psychological job strain.⁹ The model divides jobs into 4 categories: passive jobs (low demands and low control), low strain jobs (low demands and high control), active jobs (high demands and high control), and high strain...
jobs (high demands and high control). High
strain jobs pose the greatest risk for workers,9
and can lead to negative physical and psycho-
logical outcomes.10

Social support at work refers to posi-
tive social interaction available from manage-
ment and coworkers in the workplace.11 Job
strain combined with low social support has
been labeled as “isolated high strain” work. Female RNs from the Nurses’ Health Study
who experienced isolated high strain had
the lowest levels of health10 and the greatest
functional health declines independent of so-
cioeconomic status, baseline functioning, and
other confounders.12 Work support and non-
work support made the greatest contribution
to health and job satisfaction in these nurses,
and job control was a significant predictor
of health and satisfaction.10,12 Social support
from managers and coworkers buffers stress,
decreases psychological and somatic prob-
lems during and after stressful days,11 and is
associated with worker retention.4

Collective efficacy is the individual’s assess-
ment of his or her group’s ability to perform
job-related behaviors.13 It has been related to
job strain and has mediated the relationship
between situational constraints and job sat-
isfaction and intent to quit.14 In the United
States, most efforts at reducing occupational
stress have been targeted at individual inter-
ventions, rather than changing the social or
structural environment,7 but a Joint Commis-
sion on Accreditation of Healthcare Organiza-
tions Expert Roundtable recommended trans-
formation of the nursing workplace.15 There-
fore, identifying factors that significantly miti-
gate work stress, including those in the social
environment, is important to retaining nurses
in the workforce.

OBJECTIVE

The objective of this study was to in-
vestigate the relationship between perceived
supervisor support and measures of RN
occupation-related outcomes such as job con-
trol, coworker support, collective efficacy,
work stress, coping mechanisms, job satisfac-
tion, worker retention, somatic complaints,
and absenteeism.

METHODS

Design

This article describes a comparative study
of 3 nursing units within a large hospital in
the south central United States. The first unit
had a traditional nursing unit structural frame-
work, with a nonspecialized patient popula-
tion (n = 28). The second unit had a shared
governance structural framework (n = 24).
The third unit had a specialized, homoge-
neous inpatient population (n = 29). Eighty-
one nurses (n = 69) working at least 24 hours
per week in a typical staff position in the units
were approached for inclusion into the study.
Nurses had to be at least 18 years old. Ex-
clusion criteria included nurses working less
than 24 hours per week in a typical staff po-
sition, working in a supervisory capacity, on
orientation, probation, light duty assignment,
or other “nontypical” assignments during the
study.

Procedure

The author received approval to con-
duct the study from the institutional review
board, the chief nursing officer, and the unit
managers in the hospital. Each nurse was
mailed a questionnaire, a self-addressed,
stamped envelope with which to return the
questionnaire, and a postcard to return sepa-
rately and indicate they completed the ques-
tionnaire. They also received a cover letter ex-
plaining the purpose of the study, their rights,
and that they would receive $10 to partici-
pate. Dillman’s Tailored Design Method16 was
used in the construction of the letter and the
questionnaire. After 2 weeks, nurses who did
not respond received a reminder. Four weeks
later, a follow-up letter and a replacement
questionnaire, postcard, and return envelope
were sent to nonrespondents. Respondents of
the questionnaire received a “thank you” card.
Table 1. Instruments for measurement of the dependent variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Instrument</th>
<th>n</th>
<th>Mean (SD)</th>
<th>Potential range</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control over work</td>
<td>Maastricht Autonomy Questionnaire</td>
<td>68</td>
<td>2.6 (0.7)</td>
<td>1–5</td>
<td>.88</td>
</tr>
<tr>
<td>Control over work</td>
<td>Decision Latitude Scale of the Job Content Questionnaire</td>
<td>69</td>
<td>67.3 (9.2)</td>
<td>42–78</td>
<td>.55</td>
</tr>
<tr>
<td>Coworker support</td>
<td>Scale of Social Support (coworker)</td>
<td>68</td>
<td>4.0 (1.1)</td>
<td>1–6</td>
<td>.96</td>
</tr>
<tr>
<td>Supervisor support</td>
<td>Scale of Social Support (supervisor)</td>
<td>68</td>
<td>2.1 (1.0)</td>
<td>1–6</td>
<td>.98</td>
</tr>
<tr>
<td>Collective efficacy</td>
<td>Collective Efficacy Beliefs Scale</td>
<td>69</td>
<td>4.4 (0.8)</td>
<td>1–6</td>
<td>.84</td>
</tr>
<tr>
<td>Work stress frequency</td>
<td>NWSS</td>
<td>69</td>
<td>12.7 (5.0)</td>
<td>0–32</td>
<td>NA</td>
</tr>
<tr>
<td>Work stress</td>
<td>NWSS</td>
<td>53</td>
<td>41.7 (21.3)</td>
<td>0–128</td>
<td>NA</td>
</tr>
<tr>
<td>Direct coping</td>
<td>NWSS</td>
<td>55</td>
<td>50.2 (6.3)</td>
<td>0–∞</td>
<td>NA</td>
</tr>
<tr>
<td>Indirect coping</td>
<td>NWSS</td>
<td>55</td>
<td>31.6 (0.9)</td>
<td>0–∞</td>
<td>NA</td>
</tr>
<tr>
<td>Total coping</td>
<td>NWSS</td>
<td>55</td>
<td>81.8 (6.2)</td>
<td>8–∞</td>
<td>NA</td>
</tr>
<tr>
<td>Somatic complaints</td>
<td>Physical symptoms Inventory</td>
<td>18</td>
<td>26.1 (4.5)</td>
<td>0–18</td>
<td>NA</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>Single item</td>
<td>68</td>
<td>4.7 (1.5)</td>
<td>1–7</td>
<td>NA</td>
</tr>
</tbody>
</table>

*For standardized variables. NWSS indicates Nurse Work Stress Scenarios; NA, alpha coefficient not applicable for the tool.

Instruments

The questionnaire consisted of the 8 instruments listed in Table 1. The Maastricht Autonomy Questionnaire and the Decision Latitude Scale of the Job Content Questionnaire measured the amount of job control perceived by the nurse. The scale measuring supportive behaviors of coworkers and supervisors was developed by Duffy and Ganster by adapting the Inventory of Socially Supportive Behaviors. The collective efficacy scale measured the RN's perception of the efficacy of his or her unit. The Nurse Work Stress Scenarios (NWSS) is a 24-item instrument designed by the author to assess the perceived frequency and severity of work-related stressors to achieve an overall stress score. Active and indirect coping mechanisms are summed for separate scores. The Physical Symptoms Inventory measured somatic symptoms associated with psychological distress. Single-item questions were developed for job satisfaction, number of days absent when ill, number of days ill and not absent in the past 6 months, level of nursing education, length of time working in present unit, and years of nursing experience. Staff turnover for each unit was calculated using the number of RNs who resigned or retired from a 0.5 or more full-time employee position during the past 6 months and dividing by the number of 0.5 or more full-time employees in the unit, and then multiplying by 100. Coefficient α reliability estimates for each component of the questionnaire exceeded .75 except for the Decision Latitude Scale of the Job Content Questionnaire (Table 1). The number of subjects in the study (N = 69) may have affected the α coefficient for decision latitude, as the tool is generally used with larger sample sizes.

Data analysis

Data from the questionnaire were analyzed using the SAS program, Version 8.2. Multiple parametric and nonparametric testing was used as appropriate to examine relationships among variables (Table 2).

RESULTS

Sixty-nine questionnaires were completed from a group of 81 nurses (85% response).
Table 2. Plan of data analysis*

<table>
<thead>
<tr>
<th>Relationship analyzed</th>
<th>Data analysis strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference among RNs and gender, racial/ethnic background, marital status, and education background</td>
<td>Independent t test</td>
</tr>
<tr>
<td>Difference among RNs and gender, racial/ethnic background, and marital status in different units</td>
<td>$\chi^2$ test of independence</td>
</tr>
<tr>
<td>Difference among RNs and age, amount of experience, and number of years in current unit</td>
<td>ANOVA between groups design</td>
</tr>
<tr>
<td>Relationship among independent, dependent, and sociodemographic variables</td>
<td>Spearman-S ranking</td>
</tr>
<tr>
<td>Differences between 3 units and RN-dependent outcome variables</td>
<td>ANOVA between groups design</td>
</tr>
<tr>
<td></td>
<td>MANOVA</td>
</tr>
<tr>
<td></td>
<td>ANCOVA</td>
</tr>
<tr>
<td>Predictive effect of supervisor support on RN-dependent outcomes</td>
<td>Multiple regression</td>
</tr>
</tbody>
</table>

*ANOVA indicates analysis of variance; MANOVA, multivariate analysis of variance; and ANCOVA, analysis of covariance.

The independent variables (supervisor support, time working in the unit, years of experience as an RN, age, and type of unit governance) had varying amounts of influence on the dependent variables. Supervisor support demonstrated more significant effects on the dependent variables than any other variable.

Sample

The majority of the nurses participating in the study (94.2%) were female. The mean age was 36.8 years (SD = 9.8), with RNs on the traditional unit significantly older (41 years) than RNs on the shared governance unit (34 years), $P < .05$. The nurses averaged 10.3 years (SD = 9.2) of experience. More than 25% of the RNs had 4 or less years of experience and 26% had 15 or more years of experience. The nurses had worked in their current units an average of 6.5 years (SD = 6.2), with RNs working in the specialty unit significantly longer (9 years) than in the shared governance unit (4 years), $P < .05$. The majority of the nurses identified their ethnic/racial background as white (94%). The nurses were fairly evenly split between those with an associate degree in nursing (52%) and those with a baccalaureate degree in nursing or higher (48%). Slightly more of the nurses were married or had a steady partner (58%) than those who were single or divorced (42%).

Supervisor support

A 1-way ANOVA, between-groups design revealed a significant effect for supervisor support, $P < .0014$, among the 3 units. Tukey's HSD test showed that nurses in the traditional governance unit ($M = 2.7$, SD = 1.3) had significantly more supervisor support than nurses in the specialty ($M = 2.0$, SD = 0.8) or shared governance ($M = 1.6$, SD = 0.4) units. A 1-way MANOVA, between-groups design revealed a significant multivariate effect for supervisor support, $P < .05$, between the shared governance and traditional governance units. Supervisors were least likely to help the nurse complete work, finish demanding tasks, talk about private and family concerns, commend the nurse’s work, help with coworker problems, or assist with a stressful situation.

Supervisor support and dependent variables

Variables positively associated with supervisor support

Supervisor support positively correlated with job control, coworker support, collective efficacy, indirect coping, and job
Table 3. Correlation analysis using Spearman-S ranking (*N* = 69)*

<table>
<thead>
<tr>
<th></th>
<th>Control (MAQ)</th>
<th>Control (JCQ)</th>
<th>Coworker support</th>
<th>Supervisor support</th>
<th>Collective efficacy</th>
<th>Frequency of stress</th>
<th>Work stress</th>
<th>Proactive coping</th>
<th>Indirect coping</th>
<th>Job satisfaction</th>
<th>Somatic complaints</th>
<th>Absence from work</th>
<th>Absent/episode felt ill</th>
<th>Days felt ill</th>
<th>Age</th>
<th>Years as RN</th>
<th>Years in unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (MAQ)</td>
<td>1.00</td>
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<tr>
<td>Control (JCQ)</td>
<td>0.60†</td>
<td>1.00</td>
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<tr>
<td>Coworker support</td>
<td>0.17</td>
<td>0.16</td>
<td>1.00</td>
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<tr>
<td>Supervisor support</td>
<td>0.40†</td>
<td>0.29§</td>
<td>0.26§</td>
<td>1.00</td>
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<tr>
<td>Collective efficacy</td>
<td>0.37§</td>
<td>0.35†</td>
<td>0.32§</td>
<td>0.27§</td>
<td>1.00</td>
<td></td>
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<tr>
<td>Frequency of stress</td>
<td>−0.24§</td>
<td>−0.30§</td>
<td>−0.16</td>
<td>−0.54§</td>
<td>−0.16</td>
<td>−0.16</td>
<td>1.00</td>
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<tr>
<td>Work stress</td>
<td>−0.36§</td>
<td>−0.34§</td>
<td>−0.15</td>
<td>−0.39§</td>
<td>−0.24</td>
<td>−0.89§</td>
<td>1.00</td>
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<tr>
<td>Proactive coping</td>
<td>−0.03</td>
<td>0.01</td>
<td>0.05</td>
<td>−0.12</td>
<td>−0.12</td>
<td>−0.13</td>
<td>−0.13</td>
<td>1.00</td>
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<tr>
<td>Indirect coping</td>
<td>0.37§</td>
<td>0.27</td>
<td>0.14</td>
<td>0.29§</td>
<td>0.29§</td>
<td>−0.31§</td>
<td>−0.39§</td>
<td>−0.28§</td>
<td>1.00</td>
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<tr>
<td>Job satisfaction</td>
<td>0.51†</td>
<td>0.53†</td>
<td>0.42†</td>
<td>0.48†</td>
<td>0.45†</td>
<td>−0.28§</td>
<td>−0.35§</td>
<td>−0.25</td>
<td>0.40§</td>
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<tr>
<td>Somatic complaints</td>
<td>−0.25§</td>
<td>−0.14</td>
<td>−0.03</td>
<td>−0.37§</td>
<td>−0.25</td>
<td>0.31§</td>
<td>0.29§</td>
<td>0.29§</td>
<td>−0.32§</td>
<td>−0.35§</td>
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<tr>
<td>Absence from work</td>
<td>−0.23</td>
<td>−0.16</td>
<td>−0.02</td>
<td>−0.09</td>
<td>−0.14</td>
<td>0.16</td>
<td>0.17</td>
<td>0.38§</td>
<td>−0.22</td>
<td>−0.11</td>
<td>−0.31§</td>
<td>1.00</td>
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<tr>
<td>Absent/episode felt ill</td>
<td>0.08</td>
<td>0.17</td>
<td>0.05</td>
<td>−0.09</td>
<td>−0.02</td>
<td>0.08</td>
<td>0.02</td>
<td>0.05</td>
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<td>−0.04</td>
<td>0.20</td>
<td>0.36§</td>
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<tr>
<td>Days felt ill</td>
<td>−0.18</td>
<td>−0.15</td>
<td>−0.15</td>
<td>−0.25§</td>
<td>−0.20</td>
<td>0.17</td>
<td>0.09</td>
<td>0.15</td>
<td>−0.05</td>
<td>−0.21</td>
<td>0.30§</td>
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<tr>
<td>Age</td>
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<td>−0.09</td>
<td>0.08</td>
<td>0.09</td>
<td>0.23</td>
<td>0.18</td>
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<td>0.21</td>
<td>0.01</td>
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<tr>
<td>Years as RN</td>
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<td>−0.08</td>
<td>−0.15</td>
<td>−0.01</td>
<td>−0.03</td>
<td>0.25§</td>
<td>0.05</td>
<td>−0.10</td>
<td>0.04</td>
<td>−0.09</td>
<td>0.06</td>
<td>0.13</td>
<td>0.04</td>
<td>0.77†</td>
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<tr>
<td>Years in unit</td>
<td>−0.03</td>
<td>−0.02</td>
<td>0.03</td>
<td>0.02</td>
<td>−0.05</td>
<td>0.18</td>
<td>−0.01</td>
<td>−0.22</td>
<td>−0.01</td>
<td>−0.02</td>
<td>0.10</td>
<td>0.11</td>
<td>0.15</td>
<td>0.12</td>
<td>0.48†</td>
<td>0.77†</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* MAQ indicates Maastricht Autonomy Questionnaire; JCQ, Job Content Questionnaire.
† *P* < .0001.
‡ *P* < .01.
§ *P* < .05.
satisfaction (Table 3), indicating that higher levels of supervisor support were associated with higher levels of these variables. Although these variables correlated positively with each other (Table 3), multicollinearity was not a statistical problem. Supervisor support predicted 18% of the variance in job control based on the Maastricht Autonomy Questionnaire, $P < .005$, adjusted $R^2 = 0.16$, and 14% of the variance in job control based on the Decision Latitude Scale, $P < .005$, adjusted $R^2 = 0.13$ (Table 4). Nurses reported more control over determining their own method of working, the order in which their work was done, and evaluation of their work than control of other work-related issues on the Maastricht Autonomy Questionnaire. The Decision Latitude Scale of the Job Content Questionnaire revealed higher scores for skill discretion than for decision authority ($M = 67.3$, $SD = 9.2$) (Table 1), signifying more discretion by the nurse at aspects of the job, but less freedom to make decisions, perform work, and have a say about the job.

Supervisor support, years as a nurse, and years in the current unit predicted 25% of the variance in coworker support, $P < .001$, adjusted $R^2 = 0.22$. Supervisor support alone predicted 12.7% of the variance in coworker support, $P = .003$, adjusted $R^2 = 0.11$ (Table 4). Supervisor support predicted 17% of the variance in collective efficacy, adjusted $R^2 = 0.11$ (Table 4). Although none of the variables had a significant predictive effect on coping mechanisms, number of indirect coping mechanisms used had a similar pattern of positive correlation to supervisor support. The number of proactive coping mechanisms showed a positive correlation with number of somatic complaints and number of days the RN was absent from work (Table 3). A shortage of skilled labor was the only scenario in which nurses were more likely to proactively cope by contacting their supervisor.

Supervisor support and type of unit accounted for 27% of the variance in job satisfaction, $P < .0001$, adjusted $R^2 = 0.25$, with supervisor support accounting for 17% of the variance (Table 4). Seventy percent of the RNs were “somewhat” to “extremely” satisfied with their jobs ($M = 4.8$, $SD = 1.5$), with 27% of the RNs indicating “some” to “extreme” dissatisfaction. Job satisfaction was negatively correlated with work stress, frequency of encountering stress, and number of somatic complaints (Table 3).

**Variables negatively associated with supervisor support**

Supervisor support and type of unit predicted 18% of the variance in experiencing occupational stress, adjusted $R^2 = 0.15$. Supervisor support predicted 9% of the variance in work stress and 7% of the variance in frequency of encountering stressful situations at work, $P < .05$, adjusted $R^2 = 0.06$ (Table 4). Male RNs scored significantly higher for overall work stress ($M = 75$, $SD = 35$) than female RNs ($M = 40$, $SD = 19$), $P = .04$. Nurses who were married or had steady partners experienced less frequency of stress ($M = 11.7$, $SD = 4.2$), $P < .05$, than RNs who were single or divorced. Supervisor support negatively correlated with occupational stress, frequency of stress, number of somatic complaints, and number of days the nurse felt ill but came to work (Table 3).

Supervisor support predicted 8% of somatic complaints, including 18% of the variance in amount of upset stomach/nausea experienced by nurses, $P = .001$, adjusted $R^2 = 0.167$. The most common somatic problems identified were headache and fatigue (88% of the nurses) and backache (85%). Although the number of somatic complaints was positively correlated with the number of proactive coping mechanisms used, it was not correlated with age (Table 3). The number of years working in the current unit and type of unit predicted 15.7% of the variance in absenteeism due to illness, $P < .005$, adjusted $R^2 = 0.13$. Age and supervisor support predicted 16% of the variance in number of days absent with each episode of illness, $P < .05$, adjusted $R^2 = 0.13$, but only supervisor support was significant in predicting variance (7.4%) in number of days the nurse felt ill, but came to work,
Table 4. Summary of multiple regression analyses (β coefficients)*

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<tbody>
<tr>
<td>1. Type of unit</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>0.26</td>
<td>0.21</td>
<td>-0.23</td>
<td>-0.31†</td>
<td>...</td>
<td>0.30†</td>
<td>...</td>
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<td>0.30†</td>
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<tr>
<td>2. Years as an RN</td>
<td>...</td>
<td>...</td>
<td>-0.55†</td>
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<td>...</td>
<td>-0.21</td>
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<tr>
<td>3. Years in current unit</td>
<td>...</td>
<td>...</td>
<td>0.32†</td>
<td>...</td>
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<td>...</td>
<td>...</td>
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<td>0.35†</td>
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<td>4. Age</td>
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<td>5. Supervisor support</td>
<td>0.45†</td>
<td>0.37†</td>
<td>0.38†</td>
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<td>-0.30†</td>
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<td>0.51§</td>
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<td>-0.27†</td>
<td>0.54†</td>
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<tr>
<td>Final reduced model R²</td>
<td>0.18</td>
<td>0.14</td>
<td>0.25</td>
<td>0.17</td>
<td>0.07</td>
<td>0.18</td>
<td>0.08</td>
<td>0.11</td>
<td>0.27</td>
<td>0.08</td>
<td>0.16</td>
<td>0.13</td>
<td>0.07</td>
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<tr>
<td>Adjusted R² for final reduced model</td>
<td>0.16</td>
<td>0.13</td>
<td>0.22</td>
<td>0.11</td>
<td>0.06</td>
<td>0.15</td>
<td>0.05</td>
<td>0.08</td>
<td>0.25</td>
<td>0.06</td>
<td>0.13</td>
<td>0.11</td>
<td>0.06</td>
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</table>

* Ellipses indicate that the variable was not present in the model after backward regression. MAQ, the Maastricht Autonomy Questionnaire.

† P < .05.
‡ P < .01.
§ P < .001.
P < .05, adjusted $R^2 = 0.06$. While 47% of the nurses were not absent from work in the previous 6 months, 32% of the nurses used 1 to 2 days of sick time. Nurses who were married or had steady partners had fewer days in which they felt ill but came to work ($M = 3.1$, $SD = 3.4$), $P < .05$ than RNs who were single or divorced (Table 1). There was no correlation between age and number of days absent due to sickness.

Supervisor support and type of unit governance predicted 17% of the variance in staff turnover, $P < .005$, adjusted $R^2 = 0.14$. Supervisor support alone predicted 13% of the variance in nurse turnover, $P < .05$, adjusted $R^2 = 0.12$ (Table 4). The shared governance unit had the lowest perceived supervisor support ($M = 1.6$, $SD = 0.4$) and also had the highest rate of staff turnover (18%) than had the specialty unit (7.2%) and the traditional unit (9.5%).

**DISCUSSION**

The purpose of this study was to explore the relationships between perceived amount of supervisor support and RN occupation-related outcomes. First-line nurse managers often experience role conflict related to their ability to maintain clinical competencies. The daily interaction between nurse manager and staff nurse may be affected by management focus on administrative duties, creating a perception of decreased supervisor support. Findings of this study indicate that it is the affirmative contact with the first-line supervisor that influenced many of the work-related variables. RNs working in a unit with higher levels of perceived supervisor support experienced more job satisfaction, less work stress, less turnover, less somatic complaints, and fewer days in which the nurse felt ill but was not absent, particularly related to gastrointestinal complaints.

**Job control**

Job control was relatively low among all 3 units. Low scores represented a lack of control over organizational factors, rather than work tasks or decisional authority. Decisions about when and where patients were admitted and how units were staffed caused the greatest frustration. These decisions are often made by individuals other than the nurses’ immediate supervisor. Nurses’ perceptions of greater supervisor support associated with more job control may result from thinking that the more the manager solicited their input and was attentive to their concerns, the more influence the RNs had on work-related issues. The use of indirect coping mechanisms (realizing that there is nothing the nurse can do about the situation) may have the effect of releasing the nurse to focus control on other aspects of his or her work. The increase in work stress and somatic complaints with diminished job control supports Karasek’s Job Demand-Control model.

**Coworker support**

Coworker support was consistently high among nurses in all 3 units. The strong correlation with job satisfaction is repeated in the literature, and supports a relationship with collective efficacy. Role modeling by staff to emulate the positive behavior of their manager and staying longer in a unit with higher levels of supervisor support may result in a positive correlation between supervisor support and coworker support. The longer the nurses work in a unit, the closer their relationships become with each other, increasing the sense of collegiality, collaboration, and coworker support. It is logical that higher levels of coworker support within a unit leads nurses to believe that the unit can achieve needed outcomes, and that the more support the RN perceives from the supervisor, the more satisfied the RN will be with his or her job.

**Collective efficacy**

Collective efficacy’s positive correlations with job control, coworker and supervisor support, and job satisfaction may be due to the need for nurses to rely on each other
to do their work. Nurses perceive increased collective efficacy and satisfaction with work as they obtain more support from their coworkers and manager. The use of indirect coping mechanisms may alleviate the occupational stress and promote more positive interactions with coworkers, creating a greater sense of collective efficacy.

**Coping with stress**

The positive correlation between proactive coping mechanisms, somatic complaints, and days the RN felt ill may demonstrate the strain that direct action in response to stress causes, even if the action is successful. Indirect coping mechanisms may assist the nurse in directing attention to aspects of the job that can be controlled, and away from organizational problems in which he or she feels a lack of control, thereby increasing job satisfaction and sense of collective efficacy. It is not known why indirect coping was correlated with higher levels of supervisor support, but direct coping did not have a significant correlation. Nurses who believe their manager is supportive may also believe that a problem that the manager has addressed, but has been unable to improve, is unfixable. Accepting that the problem cannot be changed may free the nurse to concentrate on other issues and not use time and energy working on the problem.

**Job satisfaction**

The main significant predictor of nurses’ job satisfaction was the perception of a supportive environment. Social support was the strongest single correlate of job satisfaction. Results indicate that a supportive nurse manager/supervisor has a positive effect on perceptions of job satisfaction, which is supported by the literature. Negative correlations between job satisfaction and work stress and number of somatic complaints agree with occupational stress literature. If indirect coping mechanisms decrease work stress, then it is logical that their use would increase job satisfaction.

**Occupational stress**

Social environment, in the form of supervisor support, rather than structural environment was significantly related to amount of occupational stress. Findings correlating increased work stress with less supervisor support, job control and job satisfaction, and higher levels of somatic complaints agree with the stress literature, although supervisor support had a stronger relationship with work stress than with the other variables. Nurses who worked longer in their units encountered more stressful situations than nurses who were new to the units. The cumulative effect of working in the clinical environment for several years may lead to increased levels of occupational stress and may be a factor in the decreased use of active coping mechanisms related to increased level of experience. It was not anticipated that male nurses would rate their overall work stress more than double that of female nurses, particularly since women are more likely than men to report higher stress levels. When men and women occupy jobs in which they are in the cultural and numerical minority, they perceive more work hassles, and may be more vulnerable to stress-related problems. Male nurses rated their feelings about stressful scenarios more frequently as “stressful” or “very stressful” than did female nurses. Although the male nurses in this study did not score lower on coworker support, if feelings of alienation are more prevalent in male nurses, it may create a perception of less social support.

**Health outcomes of nurses**

The idea that increased supervisor support positively affects health outcomes among nurses is supported by the positive relationship between supervisor support, number of days the RN felt ill, and number of somatic complaints the RN experienced. If supervisor support alleviates work stress, then it would have a positive effect on employee health. Age was not a significant factor in predicting somatic complaints, days ill, or days absent.
It was, however, significant in predicting the number of days absent with each episode of illness. Somatic complaints are associated with more work stress or frequency of stress.\textsuperscript{14} If nurses perceive a lack of supervisor support, conceptualized as number of positive interactions with the supervisor, and this creates a more stressful work environment, it would explain the increase in somatic complaints and in the number of days the nurse felt ill but came to work. Nurses may be reluctant to leave coworkers without support, as evidenced by the uniformly high levels of coworker support in each unit and the lack of increase in number of days absent from work.

\textbf{RN turnover}

Social organization of work, including support from the manager, is an important determinant of voluntary turnover among RNs. The relationship between supervisor support and turnover is indicated by the unit having the lowest perceived levels of supervisor support also having the highest turnover rate.

\textbf{LIMITATIONS}

Limitations of this study include the use of 1 hospital and 3 different patient population units for comparison, the untested nature of the NWSS instrument, the small number of male and minority nurses responding to the questions, and the reliance on self-report mechanisms for data collection. The use of several hospitals would provide an opportunity for a larger sample size. More nurses in the study would permit the use of more predictor variables in a multiple regression analysis and provide a better opportunity to determine which dependent variables are the most important, as well as decreasing the type I error rate.

The NWSS was developed on the basis of findings from the pilot study and situations identified by nurses as causing the most work-related stress.

Asking nurses how they usually respond to each scenario to resolve it successfully elicited responses under the “other” category. These responses were varied and provided data for further development of the instrument. Many of the coping mechanisms identified as “other” were similar to preexisting categories. This leads to the question of whether the subjects did not realize similarities in their responses to existing categories or considered their responses to be significantly different from those categories. Further use of the tool is required in different patient care areas within a hospital setting to validate the scenarios’ applicability to overall work-related stress, as well as a more detailed identification of coping mechanisms. The NWSS scores’ correlations with other dependent variables, however, provide a degree of validity to the tool.

Fewer than 6\% of RNs were men, with only 5.1\% listed as African American; however, this demographic breakdown resembles the overall gender and ethnic background of the profession.\textsuperscript{26} The study used a self-report mechanism to obtain information that relies on honesty and a clear memory of events from the nurses.

\textbf{CLINICAL IMPLICATIONS AND FUTURE RESEARCH}

The importance of the presence of first-line managerial support has implications for the education, mentoring, and role delineation of nurse managers. The use of nurse managers/supervisors for administrative duties and management of physical resources may overlook the crucial activities of coaching, praising, counseling, and leading people. Increased span of control for nurse managers has directly related to a decrease in employee engagement.\textsuperscript{27} Although having an advanced degree is desirable, the structure and function of the manager’s role may be more important. Many responsibilities given to first-line managers are purely administrative in nature. Some of these responsibilities could be delegated to experienced staff nurses, providing them with additional uses for their expertise and an opportunity to be
relieved from the physical demands of staff nursing. With many expert nurses approaching retirement age, this could give organizations a chance to utilize senior nurses without losing them.

Although this study emphasizes the importance of supervisor support as a factor in the work environment of RNs, future research questions investigating the nature of managerial support are raised by these findings. The adapted Inventory of Socially Supportive Behaviors, used to assess supervisor support, primarily measures number of positive supervisor interactions with staff nurses. A further description or identification of actions by the supervisor that the staff perceived as supportive would be useful in evaluating the effects of this variable. What specific actions of a manager/supervisor influence nurses the most? What actions are perceived as providing the most support? What is the effect of managerial support on nurse work life? Do key characteristics exist for managers that result in higher levels of perceived support? Is there a critical mass of actions that leads to positive outcomes in nurses, or do more actions equate to more perceived support without limit? Investigating the effect of managerial support on nurses’ interpretation of increased job control could provide more information on the link between support and autonomy for nurses. Answering these questions would provide insight into changes needed in management practice and nursing infrastructure support within organizations that wish to hire and retain nurses.

A study of the differences in perceived stress levels between male and female nurses would provide more information about the effect of the nursing culture on male nurses. Do elements of the nursing professional culture create more stress for male nurses? Do male and female nurses cope differently with the same stressors in the work environment? Do they perceive the same stressors as more or less stressful? Are certain interventions perceived differently in terms of amount of support in male and female nurses? Do male and female nurses require different types of support? Investigating these questions could provide administrators with information on how to change the work environment to retain male nurses or to decrease their stress levels. A multisite study of nurses would provide a larger number of male nurses in the sample and permit better examination of the needs of male nurses within the work environment. These results lead to questioning the relationship between indirect coping mechanisms and decreased occupational stress. Investigation of nurses’ coping mechanisms, changes in their use over time, and the physical and mental effects of using specific coping mechanisms would provide insight into altering the effects of workplace stressors on nurses and educating staff and administrators about the effects of coping mechanisms.

CONCLUSION

 Increased managerial support had a significant effect on many of the dependent variables, including increases in job control, coworker support, collective efficacy, use of indirect coping mechanisms, and decreased job stress and fewer somatic complaints on days in which the RN felt ill. Job satisfaction was related to level of supervisor support and type of unit governance structure. Perceived job control was relatively low among all nurses. Coworker support was high among all nurses, as was collective efficacy.

Occupational stress correlated negatively with supervisor support, job satisfaction, and job control, and positively with somatic complaints. Nurses used more indirect coping strategies as they experienced stressful situations, and nurses who used more proactive coping mechanisms experienced more somatic complaints. Although the study was limited by the small number of male and minority nurses in the sample, male nurses rated their overall work stress more than double that of female nurses and perceived more stress related to stressful situations. Nurses with a spouse or steady partner had more positive outcomes than nurses who were single or divorced. Future research on the
nature of managerial support is needed, as well as the differences in work stress experienced by male and female nurses and the link between use of indirect coping mechanisms and health. Clinical implications include the focus of education, mentoring, and role definitions for first-line nurse managers.

For more detailed research information, please contact the author at dshall1@email.uky.edu.

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