Work strain, job dissatisfaction, and intent to leave among Home Health Care Registered Nurses: A mixed methods analysis

Presented by
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The purpose of this study was to describe homecare RNs’ perception of stressors in the work environment.
Background

• Home Health Care (HHC) services enable people to remain at home rather than use residential, long-term, or institutional-based nursing care.

• The greatest demand increase will be 109% for HHC nurses (HRSA, 2004) with a resultant 36% shortfall of HHC nurses by 2020 (U.S. Department of Labor, 2007).

• The most recent national average of turnover rates among HHC RNs is estimated to be 22.44% and an estimated 25-33% of HHC RNs report an “intent to leave” their current position.

• Strategies to improve or remove the work environment factors that negatively influence the nurses may improve retention.
Significance

• HHC RNs are understudied in research.
• This study of HHC RNs is the first to apply the ERI model to calculate their ERI ratio/score from reported work stress/strain.
• Acknowledging the specific issues reported by HHC RNs will help frame and develop the needed interventions required to improve the work environment of nurses.
• Research has demonstrated that latent conditions, such as inadequate staffing and the nurses’ work environment, are the primary sources of threats to patient safety and health care errors.
• The General Accounting Office (GAO) noted in 2004 that “efforts undertaken to improve the workplace environment may both reduce the likelihood of nurses leaving the field and encourage more young people to enter the nursing profession”.
• This study bridges the gap between Ellenbecker’s theoretical model of job retention for HHC nurses and Siegrist’s theoretical model of effort reward imbalance by exploring the root causes reported by HHC RNs regarding their level of strain/stress, job satisfaction, and “intent to leave”.
Statement of the Problem

• Effort-Reward Imbalance (ERI) due to work stress/strain measured in other occupations results in low job satisfaction, which is recognized an antecedent to a Home Health Care (HHC) RNs “intent to leave” their current position and/or profession in the published literature.

• HHC RNs, as caregivers, can experience disequilibrium between the amount of effort they invest in their care-giving in relation to the rewards and benefits they receive for those efforts that may result in low job satisfaction and an increased intention to leave.

• If a lack of reciprocity occurs between the nurses’ efforts expended and the rewards received, then this imbalance can result in low job satisfaction for the HHC RN.
Methods

- Part of a larger study funded by NIOSH
- Quan → qual design
- Three stage analysis
- Factor analysis to reduce data
- Logistic regression of 48 Organization of Work variables in parent study questionnaire
- Effort-reward imbalance scoring measuring work strain/stress
- Content analysis with coding (ATLAS.ti 4.1 software)
- Coding results validated by other researchers
- Demographics and frequencies of recurrent themes (SPSS 15.0)
- Top ten most frequent themes/issues identified
- Inclusion criteria: narrative with relevant information regarding work experience and conditions
Instrument

• 8 page self-administered survey/ 153 questions
• Machine readable
• Domains of inquiry:
  work history
  work characteristics
  work schedule
  daily work activities
  organization of work
  past yr needle/sharps & mucous membrane blood exposure
  demographics
Human Subject Protection

- Primary NIOSH study was approved by the University of Maryland IRB
- Subject’s data is de-identified in secondary study
Operational Definitions

- RITL = 56 HHC RN respondents that wrote specifically in their narratives that they had either left their positions or had plans to leave.

- NRITL = 150 HHC RN respondents that did not write anything about intent to leave in their narrative.

- Respondents with narratives = 206 HHC RNs wrote a free text narrative regarding their work experience at the end of the parent questionnaire

- Respondents without narratives = 572 HHC RNs did not write a free text narrative about their work experience
Study Aims

Aim 1: To identify categories and themes reported by the HHC RNs via their optional comments contained within the 2006 questionnaire administration.

Aim 2: To examine the influence of OOW factors on job satisfaction and intent to leave, controlling for personal characteristics.

Aim 3: To explore the differences in the ERI scores between the respondents with optional comments and the respondents without optional comments.
Aim 3 Research Questions

1. Are there differences in the mean scores measuring the level of ERI reported by RITL respondents compared to the NRITL respondents?

2. Are there differences in the mean scores measuring the level of ERI reported by respondents with a narrative and respondents without a narrative?
ERI theory

• The Effort Reward Imbalance (ERI) theory is a psychosocial model that incorporates external and internal components of work characteristics to assess levels of job strain/stress associated with job satisfaction.

• The model assumes that work contracts are not always balanced in reciprocity of rewards for the efforts requested.

• This imbalanced reciprocity of “high costs” and “low gains” results in work strain/stress that may impair successful self-regulation and this sustained strain/stress may result in an “intent to leave” among nurses.
Demographics

- Mean age = 49.8 yrs
- Yrs in Home Care = 12.2
- Yrs with current employer = 7.5
- Clients per day = 4
- Gender primarily female 96.6%
- 82.8% Caucasian followed by 14.1% Black/African American
- Education: Almost 70% of optional comments from BS (39.1) or AD (29.1) prepared RNs
Aim 3 Analysis

• Summing of ERI scores for all 794 survey respondents to determine if an imbalance was present between effort and reward for HHC RNs

• Comparing the groups with and without narratives for differences or similarities in their OOW answers and scores
Conceptual Framework

ANTECEDENTS

- Negative organizational traits
- Work stress
- Supervisor support
- Inadequate financial compensation
- Overwhelming paperwork

PERSONAL CHARACTERISTICS
- age
- race
- gender
- education
- yrs in HHC
- yrs with HHC
- employer

ATTRIBUTES

- Burnout
- Study Narratives
- High/low ERI score
- Job stress/strain
- Co-worker support
- Fatigue
- Exhaustion

HIGH/LOW ERI SCORE

- Job stress/strain

JOB SATISFACTION

- Study Narratives
- Parent Questionnaire
- one OOW item

INTENT TO LEAVE

- Reported
- Not reported

* Overlap of item sources

ERI ITEMS


ERI ITEMS


JCQ ITEMS

8*, 9*, 11*, 13*, 22*, 28*, 29*, 33*, 36*

FOCUS GROUP ITEMS

4*, 7, 10, 16, 21*, 26*, 30, 31*, 42, 43*, 44*, 45*, 46, 47, 48, 49

COPSOC ITEMS


* Overlap of item sources
Table 1. Mean scores of ERI with t test results for respondents with and without narratives.

<table>
<thead>
<tr>
<th>SCALE</th>
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<tbody>
<tr>
<td></td>
<td>N</td>
<td>min</td>
<td>max</td>
<td>m</td>
<td>sd</td>
<td>n</td>
<td>min</td>
<td>max</td>
<td>m</td>
<td>sd</td>
<td>t(df), p</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERI score</td>
<td>572</td>
<td>.17</td>
<td>1.12</td>
<td>.80</td>
<td>.19</td>
<td>206</td>
<td>1.12</td>
<td>3.88</td>
<td>1.45</td>
<td>.35</td>
<td>54.31(56) &lt; .001*</td>
<td></td>
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</table>

* statistically significant p < .05
Table 2. Proportion of high and low ERI scores by narrative group, respondents with narratives (206) and respondents without narratives (572).

<table>
<thead>
<tr>
<th>Variable</th>
<th>N= 206 n (%)</th>
<th>N= 572 n (%)</th>
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<tbody>
<tr>
<td>Low ERI score</td>
<td>117 (56.8)</td>
<td>402 (70.3)</td>
</tr>
<tr>
<td>High ERI score</td>
<td>89 (43.2)</td>
<td>170 (29.7)</td>
</tr>
</tbody>
</table>

- Low ERI score (.01 – 1.00)
- High ERI score (1.01 – 4.)
- Overcommitment scale included in the ERI scores
Aim 3 Results cont.

Table 3. Comparisons of scales between groups with (n=206) and without (n=572) narratives

<table>
<thead>
<tr>
<th>Variable</th>
<th>N=206</th>
<th></th>
<th>N=572</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m</td>
<td>Min.</td>
<td>Max.</td>
<td>Std.Dev.</td>
</tr>
<tr>
<td>Effort(^a)</td>
<td>31.89</td>
<td>7.00</td>
<td>54.00</td>
<td>10.16</td>
</tr>
<tr>
<td>Reward(^b)</td>
<td>30.64</td>
<td>9.00</td>
<td>47.00</td>
<td>6.78</td>
</tr>
<tr>
<td>ERI score(^c)</td>
<td>1.41</td>
<td>0.22</td>
<td>3.59</td>
<td>0.56</td>
</tr>
</tbody>
</table>

\(^a\) EFFORT – Includes all 12 OOW variables of effort with 48 highest possible score
\(^b\) REWARD - Includes all 15 OOW variables of reward with 60 highest possible score
\(^c\) ERI score - 4 highest possible score
Table 4. Percentage of ERI scores (respondents with narratives) reporting “job satisfaction” n=206

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (%)</th>
<th>Job satisfaction</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes n (%)</td>
<td>No n (%)</td>
<td></td>
</tr>
<tr>
<td>ERI score 1.00 or less</td>
<td>47 (22.8)</td>
<td>47 (25.1)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>ERI score 1.01 – 2.00</td>
<td>131 (63.6)</td>
<td>120 (64.2)</td>
<td>11 (57.9)</td>
<td></td>
</tr>
<tr>
<td>ERI score 2.01 – 3.00</td>
<td>26 (12.6)</td>
<td>20 (10.7)</td>
<td>6 (31.6)</td>
<td></td>
</tr>
<tr>
<td>ERI score 3.01 – 4.00</td>
<td>2 ( 1.0)</td>
<td>0</td>
<td>2 (10.5)</td>
<td></td>
</tr>
<tr>
<td>% elevated ERI score</td>
<td></td>
<td>140 (74.9)</td>
<td>19 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>187</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

a  Low ERI score (.01 – 1.00)
b  High ERI score (1.01 – 4.
c  Overcommitment scale included in the ERI scores
Conclusions Aim 3

• 43.2% of the 206 HHC RNs reporting elevated ERI scores.
• Reported high ERI scores/ratios (possible range: 1.01 to 4.00) between the RITL (n=33, 58.9%) and NRITL (n=56, 37.3%) groups.
• Among the 206 respondents with narratives that reported elevated ERI scores (n=89, 43.2%), 9.2% of them reported low job satisfaction.
• The surprising result was that the 35% (n=200) of the group without narratives (n=572) reported an effort-reward imbalance but only 14.5% of this group reported low job satisfaction.
• 372 respondents without narratives reported no effort-reward imbalance and 97.8% reported experiencing good job satisfaction.
Limitations and Strengths

Limitations:
• Sample
• Measurement
• Intent to leave not part of parent research design
• Lack of member/respondent checks on qualitative results
• New untested instrument/tool
• Questionnaire developed from multiple tools
• Respondent bias
• Secondary data analysis

Strengths:
• Researcher’s bias First study to measure work strain using the ERI model among HHC RNs
• Qualitative analysis illuminated the top work issue reported by the HHC RNs directly through their narratives.
• Sample numbers adequate
Implications for Policy

- A place to begin is to establish federal standards for HHC nurses’ work environment including but not limited to work hours, physical hazards, overtime (paid and unpaid), workload, and safety.
- The need for federal standards is so that all nurses are protected regardless of geographic location or employer.
- The recurring comments made by HHC RNs about overwhelming OASIS paperwork, (federal documentation requirements), and being grossly underpaid (federal reimbursement issue) are issues that may influence intent to leave homecare.
- The infrastructure of software and hardware within this HHC sector is not adequate for the purpose needed and is an area of concern that is best addressed by policy-makers at CMS.
Implications for Policy cont.’

• The burden of OASIS documentation results in unpaid, mandatory overtime for the HHC RNs. The need for HHC RNs to use their uncompensated private family time to conduct business for their HHC agencies is an unreasonable expectation of employers and the federal government.

• CMS reimbursement for patient services should be based on total hours worked to provide care versus face time with patients.

• One of the alarming statistic within this study is the number of HHC RN respondents without narratives (572) that reported high ERI scores (35.0%) increasing their risk of adverse health outcomes physically and mentally.

• This level of elevated effort-reward imbalance increases the responsibility and burden of management to identify the sources of job stress/strain in the work environment for their employees and intervene appropriately.
Implications for Practice

- Employers addressing and resolving issues, such as unsafe/dangerous work environments, unsupportive employer behavior, and unreasonable/excessive hours worked by HHC RNs, could have a positive impact on the retention of RNs in their agencies.
- Agency management may also consider requiring two HHC RNs to attend homecare visits in dangerous neighborhoods.
- The hiring of security guards to accompany HHC RNs into unsafe work environments could be instituted for the safety of the HHC agency employees.
- The amount of job strain reported by the HHC RNs is significant and indicates that HHC employers must resolve the work environment hazards that HHC RNs report encountering.
Implications for Practice cont.’

• The voices of these HHC RNs hopefully provides key information for the development of interventions that reduce and/or eliminate these work environment hazards.

• Increased job strain/stress and low job satisfaction among HHC RNs often results in HHC RNs leaving their position and/or profession that is documented in the literature and was supported by this study’s results of 28% reported leaving or had already left homecare.

• Almost 50% (47.7%) of the 794 HHC RNs reported elevated ERI scores/ratios but there is no published literature on measuring ERI scores among HHC RNs to compare but is an alarming result for the HHC sector.

• HHC agencies must balance their number of admissions to the amount of resources available to provide safe, quality care to the patients they serve.
Implications for Research

• Quantitative analysis alone does not provide comprehensive results and interpretation without the inclusion of qualitative analysis of the HHC RNs lived experience.

• Additional research using the ERI model to assess levels of work strain among nurses across all practice settings is indicated.

• More respect and acceptance of qualitative research and analysis.

• Hazards in the HHC RNs workplace continue despite published literature identifying these hazards so the disconnect between research findings and interventions to correct these hazards must be bridged and resolved.

• Dissemination of research results to federal policy and decision makers must be improved.

• The nurse’s voice must be respected, heard and responded to for resolution of practice errors and problems in the health care delivery system of homecare.
Concluding Remarks

• Qualitative research is required with quantitative methods to achieve an in-depth understanding of the phenomena of workplace issues among HHC RNs.
• Homecare employers need research findings to implement needed changes in homecare documentation and compensation to retain nurses
• Policy makers need better data to improve the reimbursement of homecare nursing
• Improved informatics (software and hardware) can assist in reducing paperwork burden
• The employer can resolve many of the issues through improved “organization of work” policies
• Increase in funded mixed-method research studies are needed to facilitate these improvements
Top Six Issues Reported

1. negative organizational traits (n=143, 69.4%)

2. work stress (n=131, 63.6%)

3. love homecare (n=103, 50.0%)

4. overwhelming paperwork (n=90, 43.7%)

5. inadequate financial compensation (n=88, 42.7%)

6. nurse attrition (intent to leave) (n=83, 40.3%)
References

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