EXPLORING THE RELATIONSHIP BETWEEN TASK ACCOMPLISHMENT, AFFECT, AND EMPLOYEE RESOURCES

A Thesis

Presented to

The Graduate Faculty of the University of Akron

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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August 2010
EXPLORING THE RELATIONSHIP BETWEEN TASK ACCOMPLISHMENT, AFFECT, AND EMPLOYEE RESOURCES

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Thesis

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ABSTRACT

Understanding the relationship between task accomplishment in the workplace and affective states of employees is of importance for researchers and practitioners alike. Previous work has explored the link connecting these two constructs, yet has not fully explored this relationship within an occupation-specific context. This limits our full understanding of how task accomplishment can differentially impact affect. We present a daily diary study within a nursing sample exploring this relationship at a greater level of detail by looking at core (nursing-focused) tasks and peripheral (non-nursing focused) tasks and how accomplishment of these tasks impact changes in affect from pre- to post-shift. By looking at two different types of tasks nurses must accomplish, we are able to see whether lack of accomplishment of one type has more of a detrimental effect on affect than the other. Further, we explore the buffering effect of two types of resources, social support from authority figures (e.g., physicians) and psychological resilience, on the task accomplishment to affect relationship. Results indicated that not accomplishment core tasks was more damaging on affect than not accomplishing peripheral tasks. Further, we found unique interactive effects for social support and psychological resilience: while both provided buffering effects for peripheral task accomplishment, no such effects were found for core task accomplishment, suggesting how critical it is that nurses accomplish their core tasks on a daily basis.
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. TASK ACCOMPLISHMENT AT WORK</td>
<td>5</td>
</tr>
<tr>
<td>Task Accomplishment/Failure and Affect</td>
<td>6</td>
</tr>
<tr>
<td>Accomplishment of Core Tasks versus Peripheral Tasks</td>
<td>10</td>
</tr>
<tr>
<td>III. PERSON-LEVEL RESOURCES AT WORK</td>
<td>13</td>
</tr>
<tr>
<td>Social Support</td>
<td>13</td>
</tr>
<tr>
<td>Psychological Resilience</td>
<td>15</td>
</tr>
<tr>
<td>IV. METHOD</td>
<td>18</td>
</tr>
<tr>
<td>Participants and Procedure</td>
<td>18</td>
</tr>
<tr>
<td>Daily Diary Measures</td>
<td>19</td>
</tr>
<tr>
<td>Person-Level Measures</td>
<td>21</td>
</tr>
<tr>
<td>Analytic Approach</td>
<td>22</td>
</tr>
<tr>
<td>V. RESULTS</td>
<td>25</td>
</tr>
<tr>
<td>Core versus Peripheral Tasks as Level-1 Predictors of Changes in Affect</td>
<td>27</td>
</tr>
<tr>
<td>Cross-Level Effects of Person-Level Resources</td>
<td>30</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Means, standard deviations, reliabilities, and correlations of study variables.</td>
</tr>
<tr>
<td>2</td>
<td>HLM estimates of null models.</td>
</tr>
<tr>
<td>3</td>
<td>Multilevel random coefficient model predicting changes in affect.</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hypothesized relationships</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Buffering effect of social support on the post-shift negative affect and peripheral task accomplishment relationship</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Buffering effect of psychological resilience on the post-shift positive affect and peripheral task accomplishment relationship</td>
<td>33</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

For any job, there are a wide variety of tasks that employees must perform on a daily basis (Motowidlo, 2003). As such, task accomplishment is a key focus of many employees given that “goals are always there [in the workplace], if only by default” (Campbell, McCloy, Oppler, & Sagger, 1993; p. 40). Further, research has shown that goal attainment, or the lack thereof, relates to personal well-being (Lee & Ashforth, 1996; Maslach & Jackson, 1981). However, most of the work linking task accomplishment to worker well-being has done so using between-person research designs (e.g., Henkel & Hinsz, 2004; Ilies & Judge, 2005), though there may be important variability in these constructs within a person over time. Given the dynamic nature of work and recent emphasis on understanding within-person fluctuations in a variety of organizational behavior constructs (Dalal & Hulin, 2008), we explore whether perceptions of task accomplishment also fluctuate within-individuals over time and whether this within-person variability in task accomplishment relates to momentary employee well-being.

While empirical work has shown that event-level affect is associated with a variety of workplace circumstances (Grandey, Tam, & Brauburger, 2002; Miner, Glomb, & Hulin, 2005; Yang & Diefendorff, 2009), only a few studies have considered task or goal accomplishment as an event-level antecedent of changes in positive and negative
affect (e.g., Harris, Daniels, & Briner, 2003). For the current study, we work within an Affective Events Theory (AET; Weiss & Cropanzano, 1996) framework, expecting that perceptions of task accomplishment would result in favorable changes in affect over the course of a work shift. Conversely, perceptions of task failure would negatively affect emotional states. This focus on within-person antecedents of well-being answers the call made by Diener, Suh, Lucas, and Smith (1999) for more work utilizing event- or daily-level measurements in well-being research.

In the process of testing these links, we also examined whether the accomplishment of two different categories of work tasks had different effects. One task category is considered central to the core function of the work role (job-specific tasks), whereas the other is more peripheral to the work role (non-job-specific tasks; Campbell et al., 1993). Based on role identity theory which delineates one’s occupational role into core versus peripheral tasks (Ashforth, Kreiner, & Fugate, 2003), we expected that the level of daily task accomplishment for core work tasks would be more strongly related to changes in daily affect than would the level of task accomplishment for more peripheral tasks.

In addition to considering task accomplishment and affect linkages at the event-level, we theorized that there may be person-level factors that buffer the negative effects of low task accomplishment on changes in affect. Specifically, we theorized that psychological resilience (Tugade, Frederickson, & Barrett, 2004) as an intrapersonal resource, and social support (Wallace, Bisconti, & Bergeman, 2001) as an interpersonal resource, might buffer the negative effects of task failure on changes in daily affect. Prior work has yielded mixed support for the idea that resources buffer the negative
effects of work demands on well-being, with some work supporting such an effect (Bakker, Demerouti, & Euwema, 2005) and other work showing that resources and demands independently impact employee outcomes (Bakker, Demerouti, & Schaufeli, 2003). We advance research in this area by conceptualizing and operationalizing task accomplishment as a dynamic work demand that varies over time, and conceptualizing and measuring psychological resilience and social support as stable, person-level resources.

Finally, we tested the proposed relationships in a sample of registered nurses, an occupational group with high levels of burnout and for which there is a great shortage of workers and a high rate of turnover intentions (Aiken, Sloane, Clarke, et al., 2001; Aiken, Clarke, Sloane, et al., 2002; Vahey, Aiken, Sloane, et al., 2004). As such, an intended contribution of this research is that it may provide insight into the day-level factors that impact nurse well-being, which has implications for employee burnout and turnover, as well as the quality of care provided to patients (Aiken et al., 2001). In the following sections, we elaborate on the theoretical relations of daily task accomplishment with changes in daily affect as well as the potential moderating effects of psychological resilience and social support on these links. The hypothesized relationships are presented in Figure 1.
Figure 1. Hypothesized relationships.

Person

Social Support
Psychological Resilience

Daily/Event

Core Task Accomplishment (Nursing Tasks)
Peripheral Task Accomplishment (Non-Nursing Tasks)

Changes in Daily Affect (Pre- and Post-Shift)
The attainment of work goals is of critical importance for individual and organizational success (Kanter & Brinkerhoff, 1981). Goals are believed to direct attention, energize behavior, increase employee persistence, and stimulate strategy development (Locke & Latham, 1990). Providing a dynamic view of goal regulation, Carver and Scheier (2000) emphasized the roles of discrepancy detection and discrepancy reduction in striving to accomplish tasks. According to Carver and Scheier (2000), individuals manage their behavior in relation to their goals by comparing their current level of performance against the desired level of performance to determine if a discrepancy is present (e.g., performance is below the goal). If a discrepancy is sensed, individuals are expected to engage in behaviors aimed at reducing the discrepancy. For instance, a negative discrepancy, indicating that one’s current performance is below the goal, should result in increases in effort so as to reduce the discrepancy and align future performance with the goal (Carver & Scheier, 2000). In contrast, a positive discrepancy, indicating that one’s current performance is above the goal, should result in reduced effort and the allocation of resources to other pertinent activities (Carver & Scheier, 2000). The idea that individuals monitor and manage discrepancies between desired and current states can be found in several theories of motivation and performance, including
Feedback Intervention Theory (FIT; Kluger & DeNisi, 1996), goal setting theory (Locke & Latham, 1990), and social cognitive theory (Bandura, 1997).

Task Accomplishment/Failure and Affect

Research on self-regulation has demonstrated a link between goal attainment and affect (Koole & Kuhl, 2008; Kruglanski & Kopetz, 2009). The idea that daily task accomplishment should impact daily affect is consistent with Affective Events Theory (AET; Weiss & Cropanzano, 1996). Weiss and Cropanzano (1996) developed AET to explain how discrete work events provoke emotional reactions, which influence subsequent employee behavior and other outcomes. According to AET, fluctuations in work events result in fluctuations in affect. A key contribution of this theory is that it described in detail the importance of taking a more dynamic, process-based view of work phenomena. We contend that the experience of task accomplishment or failure represents an affective event that has predictable effects on employee emotions (Henkel & Hinsz, 2004; Parrott & Sabini, 1990). Koole and Kuhl (2008) stated that en route to achieving a goal (which would end in either accomplishment or failure), individuals often encounter a variety of frustrations or successes, which can shape affective responses. From an AET perspective, attaining a goal can be viewed as a positive event that elicits positive affect, whereas not attaining a goal can be viewed as a negative event that elicits negative affect (Kruglanski & Kopetz, 2009).

Our focus is on direct perceptions of task accomplishment in a given work shift, which is akin to direct assessments of goal-performance discrepancies found in the literature (e.g., Donovan & Williams, 2003). We argue that this direct assessment of task accomplishment is more likely to impact subsequent affect and action than a measure of
accomplishment that is calculated as the difference between performance and goals (Carver & Scheier, 1998). As articulated above, various theories of motivation and action (e.g., Carver & Scheier, 2008; Kluger & DeNisi, 1996) view affect as a result of such discrepancy perceptions. Positive affect typically stems from perceptions that one is performing better than expected, whereas negative affect stems from perceptions that one is performing worse than expected (Bandura, 1997; Carver & Scheier, 1990; Carver & Scheier, 2008). While these affective reactions are believed to be functional in regards to guiding subsequent action (i.e., negative affect cues the person that more effort is needed; positive affect suggests that less effort is needed), positive and negative affect are not equally beneficial for well-being. In particular, high negative affect has been linked to a variety of detrimental outcomes such as somatic complaints, job dissatisfaction, burnout, and self-reported stress, whereas high positive affect has been linked to more beneficial outcomes such life satisfaction, job satisfaction, and engagement (Clark & Watson, 1988; Watson, 1988; Watson, Pennebaker, & Folger, 1987).

Supporting the idea that task accomplishment is related to affect, Emmons and Diener (1986) found that positive affect was associated with achieving important goals, though they did not find a consistent link between unattained goals and negative affect. More recently, Henkel and Hinsz (2004) looked at the effect of goal success or failure on affective outcomes in a laboratory setting. Utilizing a brainstorming task for generating uses for a common object, the authors assigned participants to either a condition requiring them to set their own difficult, specific goal or a condition in which participants were assigned a goal. While success-failure was not directly manipulated in the study, Henkel and Hinsz (2004) believed that, through this manipulation, roughly half of the
participants would experience success and half would experience failure (which subsequent analyses confirmed). Overall, results indicated that individuals who attained their goals experienced more positive affect and less negative affect than individuals who did not attain their goals.

Consistent with this research, Ilies and Judge (2005) found that performance feedback impacted subsequent affect (which predicted subsequent goals). Specifically, using an experimental design in six samples, Ilies and Judge (2005) provided participants with either accurate performance feedback in relation to performance goals or manipulated feedback indicating low or high task accomplishment (e.g., performing better than 35% of participants or better than 80% of participants). Overall, Ilies and Judge (2005) found that there was a significant effect of performance feedback on affective responses, with positive feedback resulting in positive affect and negative feedback resulting in negative affect. Though the link between task accomplishment and affect has been established in laboratory contexts with student samples, these effects should be examined in organizational contexts.

Representing a step in this direction, Harris et al. (2003) conducted a longitudinal (two week) diary study with 22 call centre workers focused on understanding the relationship between goal attainment and affective well-being (i.e., high positive affect and low negative affect; Diener & Larsen, 1993). At the end of each shift, participants were asked to rate the extent to which during the previous shift they accomplished five goals identified by the authors as representing the major psychological needs of all employees (e.g., interactions with coworkers, being able to influence work, good performance, high status at work, having a sense of purpose). In an attempt to isolate the
causal direction of goal attainment on affect, Harris et al. (2003) controlled for pre-shift affect in examining the goal attainment and post-shift affect relationship. Results indicated that there was a main effect of goal attainment on both pleasurable affect and activated affect, such that high goal attainment resulted in increases in both types of affect from before the shift to after the shift (and low goal attainment resulted in decreases in both types of affect).

Although these past studies have contributed to our understanding of the links of goal attainment with affect, they are limited in several ways. For instance, Ilies and Judge (2005) did not directly measure goal-performance discrepancy perceptions, suggesting that participants likely determined this discrepancy themselves. Further, their research was conducted in a laboratory setting (similar to Henkel and Hinsz, 2004)) and utilized a performance task that was simple and not likely to be representative of actual tasks employees perform in many jobs. A limitation of the Harris et al. (2003) field study was that the researchers failed to examine the link of task accomplishment with changes in negative affect, focusing instead on positive and activated affect. Additionally, the goals rated by participants were very general, need-based goals that likely do not reflect specific concrete activities performed in most work roles. More work on concrete task activities derived from the consideration of occupation-specific information would be informative. We attempt to address each of these limitations in the current study. In the following section we distinguish between two main types of work tasks performed by our occupational group (i.e., nurses).
Accomplishment of Core Tasks versus Peripheral Tasks

Campbell et al. (1993) theorized that within the concept of job performance, there exist both job-specific tasks and non-job-specific tasks. Tasks that are job-specific represent core tasks that are central to the occupation under consideration, whereas tasks that are non-job-specific focus more on aspects of the work that may be required, but are more peripheral to the core function of the occupation. According to role identity theory (Ashforth et al., 2000), individuals have socially constructed definitions of some tasks as being core to their role in the organization and of other tasks as being more peripheral in nature. The central tenet of role identity theory is that core characteristics are constituted as being more important or typical aspects of one’s role, relative to those tasks that are more peripheral (Ashforth et al., 2000; Perry, 1997). In every occupation, therefore, there exist tasks that may be more central to the occupation than other tasks.

When considering the nursing occupation, Aiken et al. (2001) distinguished between work tasks that are job-specific (core; e.g., oral hygiene, teaching and/or comforting patients) versus non-job-specific (peripheral; e.g., delivering and retrieving food trays) based on whether each task was integral to the training nurses received. Aiken et al. (2001) provided a descriptive look at the frequency with which these tasks were performed in a sample of 43,329 nurses working at 711 hospitals in 5 countries (United States, Canada, England, Scotland, and Germany). They found that nurses spend a great deal of time performing tasks that were not related to their professional training (e.g., in the United states: delivering/retrieving food trays – 42.5%, housekeeping duties – 34.3%, transporting patients – 45.7%, ordering/coordinating/performing ancillary services – 68.6%) and that such activities detract from the time they spent on more
central nursing tasks. Aiken et al. (2001) claimed that while the inclusion of these additional tasks in the nurses’ occupation has occurred due to an attempt by hospitals to increase productivity, these restructuring initiatives might have detrimental effects on nurses such as greater job dissatisfaction and increased turnover. Building on these ideas, we contend that not attaining core nursing tasks could have more serious implications for nurse well-being than not attaining peripheral tasks. As such, we separately examine the effects of task accomplishment on central and peripheral nursing tasks in an attempt to discern potential differences in their effects.

Based on prior work establishing a link between task accomplishment and affect (Harris et al., 2003; Henkel & Hinsz, 2004; Ilies & Judge, 2005), the present study examines the relationship of daily task accomplishment in core and peripheral work domains with changes in positive and negative affect in sample of registered nurses. As articulated previously, we expect that when nurses’ perceptions of met expectations are low, negative affect will increase and positive affect will decrease (from pre-shift to post-shift), with the opposite pattern of effects occurring when perceptions of met expectations are high. Similar to Harris et al. (2003) our inclusion of pre-shift affect allows us to control for prior affect and better isolate daily task accomplishment as the cause of post-shift affect. However, we take the important step of assessing both positive and negative affect, rather than just positive affect, as was done in Harris et al. Further, we extend this prior work by considering the accomplishment of core job tasks and peripheral job tasks, with the expectation that the effects of task accomplishment-failure on changes in affect will be larger for central work tasks that for peripheral work tasks. Thus, the following hypotheses are proposed:
**Hypothesis 1**: Daily task accomplishment is (a) negatively associated with changes in negative affect from pre-shift to post-shift and (b) positively associated with changes in positive affect from pre-shift to post-shift.

**Hypothesis 2**: The impact of task accomplishment on changes in daily affect is larger for core tasks than for peripheral tasks.
CHAPTER III
PERSON-LEVEL RESOURCES AT WORK

Because situational constraints within the workplace may often place a “ceiling” on the work that an individual is able to accomplish (Peters & O’Connor, 1980) and lack of accomplishment is argued to have detrimental effects on employees’ well-being (e.g., Harris et al., 2003; Henkel & Hinsz, 2004; Ilies et al., 2005), it would be of benefit to identify whether or not there are resources within the workplace that can buffer the negative effects of lack of accomplishment for employees. Bakker and Demerouti (2007) theorized that workplace resources include physical, psychological, social, or organizational aspects of the work situation which help employees achieve work goals and, more importantly, reduce the potential for negative well-being outcomes in the face of workplace stressors (Bakker & Demerouti, 2007; Bakker, Demerouti, de Boer, & Schaufeli, 2003). In the current study, we focus on two person-level resources: social support (an interpersonal resource) and the psychological resilience of employees (an intrapersonal resource). Additionally, we argue that these resources can moderate the impact that task accomplishment (or the lack thereof) has on changes in daily affect.

Social Support

Social support is frequently described as aid or assistance from family, friends, and peers that can be either actual or perceived (Wallace et al., 2001). When looking at
the impact social support can have on perceptions of the work environment, Humphrey, Nahrgang, and Morgeson (2007) found that social support related to both internal motivation and organizational commitment. Humphrey et al. (2007) conceptualized social support as assistance from both supervisors and coworkers. When considering the previously hypothesized effects, it may be that social support influences the relationship of task failure with affective reactions, buffering the blow that task failure has on changes in positive affect and negative affect. As previously articulated, lack of task accomplishment is considered a negative affective event that is stressful and harmful for individual well-being. Haines, Hurlbert, and Zimmer (1991) stated that social support is an important resource for buffering the impact of negative circumstances on individual well-being (see also, Johnson & Hall, 1988). Being able to communicate with others about complicated situations can help individuals develop strategies for addressing the difficulty, reinterpret the situation in a more positive way so as to lessen its negative impact, and allow the employee to vent, all of which can reduce the negative effects of the situation on the employee (Bakker & Demerouti, 2007).

Additionally, Lee and Ashforth (1996) found meta-analytic support for the idea that social support in general and support from supervisors specifically helps individuals cope with work demands. Bakker et al. (2005) stated that support from supervisors can be especially important in instances of work overload (e.g., feeling time pressure, having conflicting tasks to work on) since supervisor feedback may help make tasks more manageable. It may also signal to employees that supervisors are understanding of the situation and will not take action against the employee for failing to accomplish work-related tasks. Bakker et al. (2005) found that social support buffered the detrimental
effects of job demands (i.e., work overload) on core dimensions of burnout (i.e., cynicism and exhaustion). Though clearly reflecting different constructs, work overload may be linked to not accomplishing one’s tasks.

Failure is a negative experience, and not feeling that one has adequately accomplished one’s tasks for the day is expected to result in increases in negative affect and decreases in positive affect. As evidenced, social support, which can come from a wide variety of sources, may insulate individuals from the negative impact of task failure compared to those who do not have such support. In the realm of nursing, a key authority figure to look at would be the physicians whom nurses frequently must interact with. Nurses who have more support from physicians in the work environment should feel the positive, buffering effect of social support in the face of task failure. Thus, the following prediction is made:

**Hypothesis 3:** Person-level perceptions of social support moderate the within-person relationship of task accomplishment with changes in affect, such that at high levels of social support the relationship of task accomplishment with changes in affect is weak and at low levels of social support the relationship of task accomplishment with changes in affect is strong.

**Psychological Resilience**

Bakker and Demerouti (2007) stated that an important avenue for future research to explore is personal characteristics as resources. One such personal characteristic that has been linked to reactions to affective circumstances is psychological resilience. Psychological resilience refers to an individual’s ability to elicit positive emotions even in the face of highly negative events (Tugade et al., 2004). Resilience represents the
dispositional tendency to resist and recover from stressors (Ong, Bergeman, Bisconti, & Wallace, 2006). Individuals who are psychologically resilient are better equipped to maintain a state of emotional equilibrium in the presence of stressful life events (Bonnano, 2004), and are able to recognize that even setbacks can have positive value (Masten, 2001; Youssef & Luthans, 2007).

Considering psychological resilience as a buffer, Ablett and Jones (2007) found in a qualitative study that palliative care nurses who were high in resilience had higher commitment and did not quit; the authors interpreted these effects as showing that psychological resilience had a buffering effect. Beasley et al. (2003) explored the buffering effects of cognitive hardiness, which conceptually is highly similar to psychological resilience. Results indicated that cognitive hardiness was a consistent buffer of the negative effects of stressors on anxiety and depression.

Whereas social support is an external resource (e.g., peers, managers, etc.) that can buffer the effects of task failure on affect, psychological resilience represents an intrapersonal resource that may have a similar buffering effect. Demonstrating such an effect would be useful because, as highlighted by Bonanno (2004), research typically focuses on the role of psychological resilience in response to tragic life events, such as death of a loved one, with limited work focusing on its possible effects in more mundane but nonetheless stressful circumstances. Exploring this link, the following hypothesis is made:

*Hypothesis 4*: Person-level perceptions of psychological resilience moderate the within-person relationship of task accomplishment with changes in affect, such that at high levels of psychological resilience the relationship of task
accomplishment with changes in affect is weak and at low levels of psychological resilience the relationship of task accomplishment with changes in affect is strong.
CHAPTER IV

METHOD

Participants and Procedure

Archival data was used for this study. Originally, 60 nurses in a Midwest hospital system were invited to participate. Three participants were dropped because of missing data on the person-level measures, resulting in a final sample of fifty seven nurses ($n = 57$), 100% of whom were white and 96.5% reported they were female (two participants did not provide gender information). Additionally, nurses worked an average of 28.24 hours per week.

Before completing the daily diary surveys, participants completed the person-level measures (i.e., social support and psychological resilience) as part of a larger data collection project. One-on-one meetings were then set up between each nurse selected to participate in the daily diary study and the project manager. During the meeting, the nurses were provided with a booklet of pre- and post-shift questionnaires and an audio recorder. Participants completed pen-and-paper diary measures of affect before and after six consecutive work shifts. Additionally, after each shift, participants reported on the extent to which their work tasks were completed to satisfaction and provided open-ended responses related to the reasons tasks were not completed during the shift. Throughout the working shifts, all nurses carried the audio recorders allowing them to record various
experiences that happened to them throughout the day in regards to work being
performed and interactions with others. Although the sample size of 57 individuals is
relatively small, there were 342 daily measures, suggesting a reasonable level of power at
Level-1.

Daily Diary Measures

Pre-Shift and Post-Shift Affect. The same affect measure was administered pre-
and post-shift. The relevant positive and negative emotion items can be found in
Appendix A. These emotions were chosen based upon the circumplex model of emotions
created by Russell (1980). Participants were given the following prompt: “What are you
feeling right now?” This prompt was followed by a list of 15 positive and negative affect
adjectives. Participants rated each adjective on an 8-point Likert scale (0 = “Not at all;” 7
= “Strongly).

A similar measure was utilized by Erickson and Ritter (2001), who subsequently
used factor analysis to identify factors, labeled (a) “positive” emotions (“happy,” “calm,”
“relaxed,” “proud,” and “excited”), (b) “negative” emotions (“afraid,” “helpless,” “sad,”
“guilty,” and “ashamed”), and (c) “agitated” emotions (“angry,” “anxious,” “frustrated,”
“surprised,” and “irritated”). However, because of poor internal consistency reliability for
the negative emotions scale observed within our sample, we performed multilevel
exploratory factor analyses (EFA) using Mplus 5.21 (Muthén & Muthén, 1998-2007) to
better understand the underlying structure of the affect measure.

In conducting the multilevel EFA, because we wanted to measure affect at the
event-level to be specific to the daily diary data, we looked at the lower level analyses
provided by Mplus. These analyses revealed that four emotion items from the original list
of 15 had low primary factor loadings and/or high cross-loadings in the Level-1 analyses. The poorly performing items were “afraid,” “ashamed,” “guilty,” and “surprised.” After dropping these items, we identified a two-factor structure reflecting negative emotions (“angry,” “frustrated,” “helpless,” “anxious,” “irritated,” and “sad”) and positive emotions (“calm,” “excited,” “happy,” “proud,” and “relaxed”). These scales for negative and positive affect had an average internal consistency reliability in the pre-shift responses of .80 and .82, respectively, and in the post-shift responses of .87 and .82, respectively. Affect scores were calculated by summing across the items for each domain, resulting a possible range of 0-35 for positive affect and 0-42 for negative affect.

Works tasks not accomplished to satisfaction. A checklist of work tasks was provided at the end of the nurses’ shift asking them to identify the tasks that they did not feel they completed to their satisfaction during the preceding shift. These items are in Appendix B. The checklist was adapted from Aiken et al. (2001) with the intention of assessing five peripheral (non-nursing specific) and six core (nursing specific) work tasks. The non-nursing tasks included the following: “administering medication,” “charting,” “treatments,” “reviewing diagnostic test results,” and “patient history reviews.” The nursing tasks included the following: “oral hygiene,” “skin care,” “teaching patients and/or family members,” “comforting and/or talking with patients,” “developing and/or updating care plans,” and “preparing patients and families for discharge.” Two composite scores were created by summing the number of tasks checked for nursing tasks and non-nursing tasks. These values were then reverse scored so that higher scores indicated greater task accomplishment (ranging from 0 to 6 for core tasks and 0 to 5 for peripheral tasks).
For the two task accomplishment composites, we did not calculate reliability alphas due to the fact that we did not expect there to be internal consistency among the items. Working on one type of task accomplishment related to core tasks, for example, would detract from time spent on another core nursing task, meaning that the relationship among the items within the composites could potentially demonstrate negative relationships in certain situations. Given the nature of the data, reliability analyses for these two scales would not be accurate, which we acknowledge is a potential limitation. However, as explained by Crossley, Bennett, Jex, and Burnfield (2007), our task accomplishment scales may be more indicative of being formative scales, where the sum of the components of the scale are reflective of the overarching construct (i.e., core versus peripheral tasks) as opposed to being a reflective scale where the construct drives the responses on the scale items. In these situations, Crossley et al. (2007) state that utilizing standards for reliabilities of items on a scale may be inappropriate. We chose to agree with this rationale, thus proceeding with the analyses.

Qualitative Measures. Although not a primary focus of the analyses, qualitative questions probing the reasons for not completing tasks (or being able to complete them) were collected on the post-shift surveys and via voice recordings. Questions that participants responded to on the daily diary entries are referenced in Appendix C. While not explicitly explored in the Results section, we utilized these comments when drawing conclusions in the Discussion section.

Person-Level Measures

Social support. Social support was measured with a three-item subscale of the revised version of the Nursing Work Index based upon work by Aiken and Patrician
(2000) and Lake (2002). These three items were designed to measure the extent to which nurses felt they had social support from a person in an authority position in the hospital (e.g., a physician). A sample item is “Physicians and nurses have good relations” (all items are included in Appendix D). Participants responded using a 4-point Likert scale (1 = “strongly disagree,” 2 = “disagree,” 3 = “agree,” 4 = “strongly agree”). The internal consistency reliability for this scale was .84.

_Psychological resilience_. Psychological resilience was measured with a 25 question scale based upon the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). This scale can be found in Appendix E. Participants were asked to consider the prior month and to indicate the extent to which each item was true of them on a 5-point Likert scale (1 = “not true at all,” 2 = “rarely true,” 3 = “sometimes true,” 4 = “often true,” and 5 = “nearly always true”). A sample item from the CD-RISC is: “I work to obtain my goals, no matter what roadblocks I encounter along the way.”

Previous research has demonstrated the validity of combining all items into one overall resilience scale as well as separating it into distinct subscales. For example, Connor and Davidson (2003) conducted successful convergent and discriminant validity tests with the total scale score, as well as factor analytic results demonstrating that it does partition into five unique factors. The current study uses only the total scale score. Within the current study, the internal consistency reliability was .95 in the current study.

_Analytic Approach_

Hierarchical linear modeling (HLM 6.0; Raudenbush & Bryk, 2002) was utilized in testing all of the hypotheses. This analytic procedure explicitly considers the nested nature of the data, being that the data resides at both daily and person levels. As
indicated by Hofmann, Griffin, and Gavin (2000), HLM is beneficial when utilizing study designs that are longitudinal in nature, as is the case with the daily diary data. Further, HLM allows one to simultaneously examine the influence of person- and event-level variables on dependent variables. Within the study, the Level-1 variables included all of the daily measures (task accomplishment and pre-shift and post-shift affect). The Level-2 predictors were social support and psychological resilience. Based upon the recommendations provided by Enders and Tofighi (2007), all Level-1 predictors involving potential cross-level interactions were group-mean centered (e.g., peripheral and core nursing tasks). In contrast, pre-shift affect, which was included to allow interpretation of the post-shift affect variable as a change, was grand-mean centered. Level-2 variables (psychological resilience and social support) also were grand mean centered.

A series of models was examined to test our hypotheses. First, a null model with no predictors (only the within person grouping variable) and just the dependent variable (post-shift positive or negative affect) was examined. This initial model allowed us to partition the variance in the dependent variable into within-person and between-person components. In the second model, all of the main effects variables were entered (pre-shift positive or negative affect, core nursing tasks, and peripheral nursing tasks). This model was used to test Hypotheses 1 and 2, with our primary focus being the effects of core and peripheral nursing tasks; pre-shift positive or negative affect was simply a control variable within these models. Finally, in the third model, the Level-2 variables of social support and psychological resilience were entered as predictors of the Level-1
intercepts and slopes for core and peripheral nursing task accomplishment to test Hypotheses 3 and 4.
CHAPTER V
RESULTS

Means, standard deviations, and zero-order correlations among the person-level variables and aggregated daily variables are reported in Table 1. As a whole, nurses reported fairly high levels of positive affect pre- and post-shift (\(M = 19.18; M = 19.61\) respectively) in conjunction with fairly high level of average psychological resilience (\(M = 91.49, \) or 3.65 on a 5-point scale) and social support (\(M = 8.33, \) or 2.78 on a 4-point scale).

As anticipated, we found significant correlations between core task accomplishment and post-shift positive affect (\(r = .39, p < .01\)) and post-shift negative affect (\(r = -.48, p < .05\)) in the anticipated direction. Similar correlations emerged for peripheral task accomplishment in relation to post-shift positive affect (\(r = .32, p < .05\)) and post-shift negative affect (\(r = -.28, p < .05\)). These correlations lend initial support to hypothesis 1. Although this hypothesis was focusing on the pre- to post-shift affect change, we expected that both core and peripheral task accomplishment would have a positive relationship with positive affect and a negative relationship with negative affect.

Further, we found a significant correlation between social support and post-shift positive affect (\(r = .34, p < .05\)) and post-shift negative affect (\(r = -.35, p < .05\)). Psychological resilience was also positively related to post-shift positive affect (\(r = .37, p\))
These relationships coincide with what would be expected when considering the buffering effects for hypotheses 3 and 4.

Table 1: Means, standard deviations, reliabilities, and correlations of study variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td></td>
<td></td>
<td>Average Daily Affect</td>
<td>Pre-Shift Positive Affect</td>
<td>Post-Shift Positive Affect</td>
<td>Pre-Shift Negative Affect</td>
<td>Post-Shift Negative Affect</td>
<td>Core Task Accomplishment (Nursing Tasks)</td>
<td>Peripheral Task Accomplishment (Non-Nursing Tasks)</td>
<td>Social Support</td>
<td>Psychological Resilience</td>
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<tr>
<td></td>
<td></td>
<td>19.18</td>
<td>5.73</td>
<td>.05***</td>
<td>.70**</td>
<td>.82</td>
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<td></td>
<td></td>
<td>19.61</td>
<td>4.97</td>
<td>.70***</td>
<td>.55**</td>
<td>.80</td>
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<td></td>
<td></td>
<td>9.78</td>
<td>2.73</td>
<td>.31*</td>
<td>.49*</td>
<td>.87</td>
<td>.87</td>
<td>.87</td>
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<tr>
<td></td>
<td></td>
<td>10.50</td>
<td>3.53</td>
<td>.31*</td>
<td>.49*</td>
<td>.87</td>
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<tr>
<td></td>
<td></td>
<td>0.91</td>
<td>1.07</td>
<td>.39**</td>
<td>.40**</td>
<td>.48**</td>
<td>.48**</td>
<td>.48**</td>
<td>.48**</td>
<td>.48**</td>
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<tr>
<td></td>
<td></td>
<td>0.54</td>
<td>0.57</td>
<td>.30*</td>
<td>.28*</td>
<td>.59**</td>
<td>.59**</td>
<td>.59**</td>
<td>.59**</td>
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<td></td>
<td></td>
<td>8.33</td>
<td>1.73</td>
<td>.34**</td>
<td>.30*</td>
<td>.35**</td>
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<tr>
<td></td>
<td></td>
<td>9.49</td>
<td>1.42</td>
<td>.49**</td>
<td>.37**</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
</tr>
</tbody>
</table>

Note: n = 57 for all variables. All reported correlations are between-person correlations. Reliabilities are along the diagonal in parentheses and were not calculated for the Core or Peripheral Task Accomplishment composites. The means for these composites signify the amount of tasks completed to satisfaction (closer to 1 = more completed to satisfaction).

*p < .05; **p < .01
Table 2 provides the results of the null models for all Level-1 variables considered, showing that the percentage of total variance in each of the daily variables residing within persons ranged from 39.03% to 87.08%. Thus, the amount of within-person variability was quite high, suggesting that it is appropriate to test the hypotheses at the within-person level of analysis.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pooled Intercept ($\gamma_{00}$)</th>
<th>Within-Person Variance ($\sigma^2$)</th>
<th>Between-Person Variance ($\tau_{00}$)</th>
<th>% of total variance that is within persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Shift Positive Affect</td>
<td>19.14***</td>
<td>18.79</td>
<td>29.02</td>
<td>39.03%</td>
</tr>
<tr>
<td>Post-Shift Positive Affect</td>
<td>19.69***</td>
<td>26.40</td>
<td>20.48</td>
<td>56.31%</td>
</tr>
<tr>
<td>Pre-Shift Negative Affect</td>
<td>9.78***</td>
<td>17.36</td>
<td>10.81</td>
<td>60.50%</td>
</tr>
<tr>
<td>Post-Shift Negative Affect</td>
<td>10.76***</td>
<td>35.73</td>
<td>5.30</td>
<td>87.08%</td>
</tr>
<tr>
<td>Core (Nursing) Task Accomplishment</td>
<td>0.88***</td>
<td>1.12</td>
<td>0.93</td>
<td>54.63%</td>
</tr>
<tr>
<td>Peripheral (Non-Nursing) Task Accomplishment</td>
<td>0.52***</td>
<td>0.49</td>
<td>0.22</td>
<td>69.01%</td>
</tr>
</tbody>
</table>

*Note. % of total variance that is within-person was computed using the formula $\sigma^2 / (\sigma^2 + \tau_{00})$. $\gamma_{00}$ is the average value of the dependent variable across individuals and units.

**Core versus Peripheral Tasks as Level-1 Predictors of Changes in Affect**

Two multilevel models (positive affect and negative affect) were estimated with pre-shift affect (either positive affect or negative affect respectively) and the two task accomplishment scales. Hypothesis 1 suggested that daily task accomplishment would be (a) negatively associated with changes in negative affect from pre-shift to post-shift and (b) positively related with changes in positive affect from pre-shift to post-shift. Further,
Hypothesis 2 predicted that the impact of task accomplishment on the changes in negative affect would be greater for core tasks than for peripheral tasks. We tested post-shift positive affect and negative affect as separate dependent variables while controlling for pre-shift positive affect and negative affect, respectively. The results of these analyses can be found in Table 3.

In considering Hypothesis 1a for negative affect, we first computed a null model, which showed that approximately 87.08% of the variance was at the daily-level. Controlling for pre-shift negative affect (which accounted for approximately 12.42% of the within person variance in post-shift negative affect), there were significant main effects for both core task accomplishment and peripheral task accomplishment ($\gamma = -2.47$, $p < .01$ and $\gamma = -1.23$, $p < .01$, respectively) on post-shift negative affect and in the expected direction. Together, these predictors accounted for 41.58% of the within-person variance in changes in negative affect from pre-shift to post-shift. These results suggest that as core and peripheral task accomplishment decreases (e.g., more tasks are not completed to satisfaction), post-shift negative affect increases. Thus, Hypothesis 1a was supported for both types of task accomplishment.

For positive affect, as a first step we computed a null model with no predictors for the dependent variable. These analyses revealed that 56.31% of the variance in post-shift positive affect was within individuals. Controlling for pre-shift positive affect (which accounted for 4.84% of the within-person variance), results indicated that there was a significant main effect of core task accomplishment on post-shift positive affect ($\gamma = 2.07$, $p < .01$) while there was not a significant main effect for peripheral task accomplishment ($\gamma = .70$, n.s.). Together, these predictors accounted for 27% of the
within-person variance in changes in positive affect from pre-shift to post-shift, and suggest that as core task accomplishment increases, post-shift positive increases relative to pre-shift positive affect. Thus, Hypothesis 1b was supported for core task accomplishment, but not for peripheral task accomplishment.

Table 3. Multilevel random coefficient model predicting changes in affect.

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Post-Shift Positive Affect</th>
<th>Post-Shift Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level-1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>19.82 ** (0.49)</td>
<td>10.59 ** (0.37)</td>
</tr>
<tr>
<td>Pre-Shift Affect</td>
<td>0.28 ** (0.07)</td>
<td>0.18 * (0.08)</td>
</tr>
<tr>
<td>Core Tasks (Nursing)</td>
<td>2.07 ** (0.36)</td>
<td>-2.47 ** (0.38)</td>
</tr>
<tr>
<td>Peripheral Tasks (Non-Nursing)</td>
<td>0.70 (0.51)</td>
<td>-1.23 ** (0.33)</td>
</tr>
<tr>
<td><strong>Level-2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support (Intercept)</td>
<td>0.65 * (0.25)</td>
<td>-0.58 * (0.23)</td>
</tr>
<tr>
<td>Psych. Resilience (Intercept)</td>
<td>0.07 (0.04)</td>
<td>0.02 (0.23)</td>
</tr>
<tr>
<td>Social Support x Core Tasks</td>
<td>0.21 (0.22)</td>
<td>-0.38 (0.21)</td>
</tr>
<tr>
<td>Social Support x Peripheral Tasks</td>
<td>-0.43 (0.27)</td>
<td>0.53 * (0.24)</td>
</tr>
<tr>
<td>Psych. Resilience x Core Tasks</td>
<td>0.05 (0.03)</td>
<td>-0.03 (0.03)</td>
</tr>
<tr>
<td>Psych. Resilience x Peripheral Tasks</td>
<td>-0.06 * (0.02)</td>
<td>0.02 (0.03)</td>
</tr>
</tbody>
</table>

*Note. Event-Level Data n = 342, Person-Level Data n = 57. Values are for fixed effects (γs) with robust standard errors. Values in parentheses are standard errors. Pre-shift affect corresponds to pre-shift positive affect for post-shift positive affect and pre-shift negative affect for post-shift negative affect.

* p < .05
** p < .01
In regards to Hypothesis 2, it was expected that these effects would be more pronounced for core nursing tasks because such tasks are believed to be more central to individuals’ nursing role identities (e.g., Ashforth et al., 2000; Campbell et al., 1993; Perry, 1997). In order to see whether or not this was supported, we initially considered the results from hypotheses 1a and 1b. When looking at the results from Hypotheses 1a and 1b, only core task accomplishment had significant main effects for both positive and negative affect post-shift; peripheral task accomplishment only had a significant effect on post-shift negative affect. Further, when looking at the magnitude of the main effects found, there was a large effect for core task accomplishment in predicting both post-shift positive and negative affect in comparison to the effect of peripheral task accomplishment.

To further support hypothesis 2, we then looked at the unique, incremental contribution that core and peripheral task accomplishment had alone on post-shift positive and negative affect. When looking just at the incremental variance accounted for, core task accomplishment had a greater impact on both post-shift negative (16.58%) and positive (14%) affect; this is in comparison to peripheral task accomplishment, which only accounted for 1.58% and 5% incremental variance in post-shift negative and positive affect respectively. These results support Hypothesis 2, indicating that core nursing task accomplishment had a larger impact on post-shift affect than did peripheral task accomplishment.

Cross-Level Effects of Person-Level Resources

Hypothesis 3 proposed that person-level perceptions of social support would moderate the within-person relationship between task accomplishment and changes in
affect, such that the relationship would be stronger when supervisor social support is low than when it is high. For post-shift positive affect, as can be seen in Table 3, social support did not have significant interactions with either core ($\gamma = 0.21, n.s.$) or peripheral task accomplishment ($\gamma = -0.43, n.s.$), though there was a significant main effect for social support on the post-shift positive affect intercept ($\gamma = 0.65, p < .05$). Thus, Hypothesis 3 was not supported for positive affect. However, the significant main effect of social support on the post-shift positive affect intercept indicated that nurses who reported greater social support from physicians also tended on average to report higher post-shift positive affect.

For post-shift negative affect, supervisor social support again had a significant main effect ($\gamma = -0.58, p < .05$) as well as a significant interaction with peripheral task accomplishment ($\gamma = 0.53, p < .05$). This interaction effect accounted for approximately 4.47% of the variance in the slopes. However, the interaction of supervisor social support with core task accomplishment was not significant ($\gamma = -0.38, n.s.$). As can be seen in Figure 2, when individuals experience high levels of supervisor social support, the relationship of changes in negative affect with peripheral task accomplishment is weaker compared to when supervisor social support is low. These results offer support for the buffering effect of social support for peripheral tasks, but not for core tasks, partially supporting Hypothesis 3.
Finally, Hypothesis 4 suggested that person-level perceptions of psychological resilience would moderate the within-person relationship between task accomplishment and changes in affect, such that the effect would be weakened when psychological resilience is high. For post-shift negative affect, no interactions were found for core task accomplishment ($\gamma = -0.03$, n.s.) or peripheral task accomplishment ($\gamma = 0.02$, n.s.). Additionally, there was no significant main effect of psychological resilience on post-shift negative affect ($\gamma = 0.02$, n.s.).

For post-shift positive affect, as can be seen in Table 3, psychological resilience had a significant interaction with peripheral task accomplishment ($\gamma = -0.06$, p < .05) accounting for approximately 4.5% of the variance in slopes. However, there was no significant interaction with core task accomplishment ($\gamma = 0.05$, n.s.), nor was there a
main effect of post-shift positive affect ($\gamma = 0.07$, n.s.). Figure 3 plots the significant interaction between psychological resilience and peripheral tasks on post-shift positive affect. For individuals with high levels of psychological resilience, the relationship of peripheral task accomplishment with changes in positive affect is weaker compared with individuals at low levels of psychological resilience. Therefore, these results offer partial support for Hypothesis 4, with only a buffering effect existing for psychological resilience and peripheral tasks on post-shift positive affect.

*Figure 3. Buffering effect of psychological resilience on the post-shift positive affect and peripheral task accomplishment relationship.*

*Note:* High psychological resilience is 1 standard deviation above the mean; low psychological resilience is 1 standard deviation below the mean. Affect scores were summed across all participants.
Dalal and Hulin (2008) highlighted the important point that organizational behavior research should be conducted at the level of analysis corresponding to the theory in question. In the case of most theories of motivation and emotion (Diefendorff & Chandler, in press; Elfenbein, 2007), the theoretical processes reflect both person-level constructs that stay relatively constant over time and event-level constructs that fluctuate within a person over time. Based on this understanding, the current investigation simultaneously examined within-person fluctuations in task accomplishment and affect, as well as between-person levels of psychological resilience and supervisor support. In particular, the current study demonstrated that within-person variation in occupation-specific task accomplishment (Aiken et al., 2001) co-varied with fluctuations in end-of-day positive and negative affect, controlling for pre-shift affect. Additionally, we found that person-level resources moderated some of the links between task accomplishment and post-shift affect, thus garnering support for the buffering effect of resources within the workplace.

The results demonstrated that experiencing task accomplishment during work shifts results in improved affect from before the shift to after the shift. Moreover, this effect was larger for core tasks than for peripheral tasks for both positive and negative
affect. To further highlight this finding, one nurse made the following commentary: “I had extra time yesterday because of a low census…[I] got to do adequate teaching with the patients, which sometimes you just zip through it as fast as possible. So I feel pretty good…it’s 10:16 and I already completed teaching with one of those patients and she really appreciated that I had the time to sit and talk to her.” This pattern of results is consistent with Ashforth et al. (2000) who theorized that certain tasks would be more salient to one’s occupation than others and their effects on individuals will be greater. This finding is a contribution, given that prior work has only considered the effects of accomplishment for laboratory-based tasks or very general, need-based goals (e.g., Harris et al., 2003; Henkel & Hinsz, 2004). Thus, task accomplishment is not in and of itself the reason that one’s affect changes from pre-shift to post-shift. Specifically, the type of tasks being accomplished (or not) make a difference with regard to the impact on changes in affect. Our work suggests that occupation-specific task accomplishment is especially important with regard to daily well-being, though the accomplishment of peripheral tasks also had significant effects.

Interestingly, the buffering effects of the person-level resources occurred for the peripheral tasks but not the core tasks. One nurse explained the following situation on her voice recordings what the situation feels like when resources are not present to help combat lack of peripheral task accomplish: “…we have 9 patients today so we actually started out with good assignments. However, we have no support help. So, we are passing linens and doing various other things, making beds, just like every other day. It is what we spend most of our time doing: tasks.” This pattern of findings suggests that having high levels of social support and high levels of psychological resilience may
primarily help individuals cope with low task accomplishment when the tasks are not central to the work role identity, but that these resources cannot buffer the impact of low task accomplishment for more important, core nursing tasks. What constitutes being a “good” or “bad” nurse may be more tied to accomplishing core, nursing specific tasks as opposed to peripheral, non-nursing tasks (Aiken et al., 2001). Further, given that the buffering effect did not occur in relation to nursing-specific tasks, this suggests that favorable resources cannot compensate for not being a “good” nurse and accomplishing core nursing tasks on a particular day.

While both buffering effects occurred with regard to peripheral task accomplishment, we found that the resources tended to buffer changes in positive and negative affect differentially. Specifically, peripheral task accomplishment and social support were found to interact in predicting post-shift negative affect, such that higher levels of social support weakened the relationship between task accomplishment and post-shift negative affect. This finding suggests that, in the current study, feeling supported by physicians can help to mitigate the negative effects of not feeling as though one accomplished the non-nursing tasks for a given shift. Consistent with this idea, we identified the following quote from the voice recording of a particular nurse in our sample: “I had a doctor, not a resident, but a doctor, actually help me make a patient’s bed today. Quite amazing; they don’t really ever seem to do that. [It] felt pretty good; he commended the nurses. He says he notices the nurses aren’t thanked enough…he thought it was necessary to thank us for all of our hard work so it was kind of a nice moment.” This quote illustrates the importance to nurses of feeling supported by physicians in their unit and how that may help them cope with work demands. Further,
this interaction effect is consistent with the conclusion outlined by Cohen and Willis (1985), stating that not meeting demands (e.g., not accomplishing tasks) can lead to maladaptive emotional responses and that social support could potentially decrease these maladaptive responses. While we did not observe that social support had a similar buffering effect on the links of task accomplishment with changes in positive affect, this might be expected given the evidence that people seek support as a way to cope with negative circumstances (Bakker & Demerouti, 2007). That is, social support might primarily be beneficial for combating negative reactions to situational factors and “down-regulating” the negative emotions that individuals experience at work.

Conversely, peripheral task accomplishment and psychological resilience were found to interact in predicting post-shift positive affect, such that at high levels of psychological resilience the relationship between task accomplishment and post-shift positive affect was weakened. Specifically, individuals who were high in psychological resilience experienced higher levels of positive affect across both high and low task accomplishment situations; for those who were low in psychological resilience, post-shift positive affect was more strongly predicted by task accomplishment. Interestingly, we did not find that resilience moderated the links of task accomplishment with changes in negative affect. Finding that psychological resilience only buffered the effects on post-shift positive affect fits previous work that has linked psychological resilience to positive emotions and the ability to “up-regulate” positive affect (Fredrickson et al., 2003; Ong et al., 2006). It is these underlying positive emotions that help individuals who are psychologically resilient cope with negative outcomes and see the “brighter side” of situations, thus explaining why nurses who were higher on this individual difference
variable experienced high post-shift positive affect even in the face of low peripheral task accomplishment. These findings are consistent with Fredrickson et al. (2003), who proclaimed that psychological resilience serves as a buffer by allowing individuals to take a more positive direction in viewing outcomes of situations (i.e., seeing the bright side or a potential opportunity in not accomplishing a set of tasks today).

**Theoretical and Practical Implications**

Aiken et al. (2001) acknowledged that increased turnover and lower quality care are a significant problem in the nursing profession. Additionally, within their study of 43,329 nurses across 5 countries as previously mentioned, nurses within the United States reported higher percentages of job dissatisfaction in comparison to the other countries that were included in the study, in conjunction with reporting increased levels of job-related strain. Further, Aiken et al. (2002) argued that unrealistic workloads could be to blame for these problems. Within the current study, we were able conduct a quantitative test of this notion, demonstrating that as lack of task accomplishment increased throughout the workday, detrimental changes in affect accrued. Beyond this, however, we were able to clarify the effects of different types of demands, core versus peripheral, and the effects they had on the daily affect variables. Therefore, the present study not only confirmed the framework proposed by Aiken and colleagues (2001, 2002), but further clarified the effects of these tasks and their accomplishment have on well-being.

Beyond the immediate theoretical contribution of these results, the current study may be of interest to nursing managers or hospital administration. Given that not completing core tasks on a daily basis had a larger effect on well-being than not accomplishing peripheral tasks, management would be well-suited to understand the
ramifications on nurses of not completing certain kinds of tasks over others. Thus, more attention could be given to making sure nurses accomplish the tasks that are most salient to the occupation as opposed to diverting attention towards peripheral, non-nursing tasks. Indeed, Aiken et al. (2002) stated that a major hurdle in increasing the quality of patient care is addressing staffing levels and decreasing the demands placed on individual nurses. Within the qualitative data, one nurse explained why she experienced a good day on the job: “It was really great to be able to evaluate and assess patient needs and to educate them today! This is the part of my job that I love!” This supports our claim that core tasks are what nurses want to be spending their time on throughout the day, and hospital systems would be of benefit to focus their energies on allowing nurses to accomplish those salient, occupation-specific tasks.

Besides encouraging nurses to focus on accomplishing their nursing-related tasks, management could do things within the system to assist this such as delegating task assignments and hiring additional staff (both in terms of additional nurses and support staff). From the qualitative data, one nurse stated the following: “[I am] concerned about co-workers to have nine and ten patients each a piece on [a] night shift with no one to help (no nursing assistants).” In a subsequent day of participation in the study, the same nurse stated that one of the problems she was experiencing was not having enough nurses hired. Additionally, on the final day of the study, this nurse stated: “[I] had five discharges in one hour [and] got five new patients in two hours.” Moreover, another nurse on her work shift proclaimed the following: “It sure would be helpful to have a nursing assistant to help with beds and baths and answer call lights and do tasks, but guess it’s not in the budget.” These sentiments were resonated by other nurses throughout
the study, demonstrating the potential importance of hospital management considering both the workload of individual nurses and unit staffing as important determinants of core task accomplishment and well-being.

Additionally, finding that resources only buffered the effects of low peripheral task accomplishment on daily affect and not low core task accomplishment on affect suggests that management cannot rely on such mechanisms in regards to helping nurses cope with not accomplishing tasks that are central to their work-role identity. Thus, management should be cognizant that while resources are advantageous to an extent, when it comes to nurses not achieving their core nursing tasks there is very little that can be done to buffer the increased end-of-day negative affect (or decreased end-of-day positive affect). Therefore, this further emphasizes the idea that management should assist nurses in achieving these tasks rather than in trying to cope with not achieving them after the fact. While resources as a whole are believed to be highly beneficial, the current work provides boundary conditions in which resources may not have any effect as a coping mechanism (e.g., when tasks or demands are strongly related to one’s role identity).

Limitations and Future Directions

As with any study, there are limitations that must be addressed. Our measures of task accomplishment were from a single source (the individual nurse) which puts their reliability into question. Future work should use multiple sources of information for task accomplishment (e.g., having other nurses rate the individual’s task accomplishment). Additionally, this study did not consider the reasons for daily task accomplishment or task failure. Although this is a slightly different research question than the current study,
future work should examine the factors that prevent individuals from achieving tasks throughout the workday. Although the current work demonstrates that not completing tasks relates to changes in affect throughout the course of the day (especially in the case of tasks that are core to the nursing profession), an important next step involves looking at factors in the organizational context preventing nurses from feeling like they are getting the important things done on a given day.

Additionally, our sample size was relatively small \((n = 57)\) for testing the cross-level interactive effects. However, the small n-size was not a significant limitation for testing the daily-level relationships, which were based on 342 responses. Further, we were able to detect significant cross-level interactions with this relatively small sample size, suggesting that statistical power was not a serious issue. Nonetheless, future research employing a large sample may yield even more significant effects, especially when exploring cross-level interactions of task accomplishment and resources. Further, this study was conducted within a rather narrow occupational context and a demographically homogenous sample. Future research should be conducted not just with larger, more diverse samples in other occupations, but also for longer time frames than six consecutive days if possible. Given that the work context is highly dynamic, an increased number of event-level responses could be beneficial. One potentially highly fruitful avenue of research to extend the current study would be to move to an experience sampling methodology (ESM; Csikszentmihalyi & Larson, 1987) when studying nurses (or any occupation-specific test of the present model) at the daily level. This type of data collection would allow for more data points per participant per day, thus further demonstrating the within-person variability that can occur more deeply in regards to
affect and daily levels of task accomplishment. Further, within the current study, although participants completed two surveys throughout the day (one pre- and post-shift), this still required participants to fill out measures retrospectively. Although this was still an advantage over one-time measures, having multiple data points collected at random through an ESM study would cut back even more on the amount of retrospection occurring.

Finally, we acknowledge that all of the data (event- and person-level measures) came from the same source, increasing the possibility of same source bias. Of course, same source bias attributable to person-level influences is not a factor for the event-level responses, but more momentary factors (e.g., arousal, illness) could bias the event-level responses. Additionally, it was not possible to monitor whether or not the nurses completed the pre- and post-shift measures at their intended time, nor was it possible to measure how long before and after a shift each survey was completed. Future research would be well served to assess independent or dependent variables from additional sources and to more carefully monitor data collection if possible. For example, in a nursing population, direct measures could also be collected from supervisors and colleagues in regards to reporting nurses affect while at work and reporting on tasks that were assigned that day. This would allow for a differential perspective in order to explore the current model, thus allowing for increased triangulation of data to support our claims.

Similarly, future research could examine tangible, bottom-line outcomes such as patient health as indicators of nursing effectiveness. For example, one could include measures that assess patient physical and mental health and the quality of care provided as outcomes of daily-level task accomplishment and affect. According to Donabedian
(1980), outcome quality would be measuring “a change in a patient’s current and future health status and improvement of social and psychological function that can be attributed to antecedent health care” (p. 82). Further, Lin (1996) states that evaluation of patient outcomes is a highly critical phase for any research within the field of nursing; essentially, only through measuring patient outcomes can we demonstrate the utility of research within the nursing realm. Future research exploring task accomplishment and affect within the nursing context should address this call.

Conclusion

In sum, we have demonstrated that task accomplishment (or lack thereof) does have significant main effects on changes in post-shift positive and negative affect, with these effects magnified to a greater extent by accomplishment or failure of core nursing tasks. Additionally, we demonstrated that while resources such as social support and psychological resilience have positive buffering effects in weakening the relationship between task accomplishment and affect, these effects only occurred for peripheral as opposed to core tasks. We contend that these findings provide a unique, occupation specific look at the antecedents of important daily well-being outcomes of nurses.
REFERENCES


APPENDICES
APPENDIX A

PRE- AND POST-SHIFT AFFECT

What are you feeling right now? (0-7 scale; 0 = “Not at all;” 1 and 2 = “Slightly;” 3, 4, and 5 = “Moderately;” 6 and 7 = “Strongly”)

Positive Emotions

1. Happy
2. Calm
3. Relaxed
4. Proud
5. Excited

Negative Emotions

1. Angry
2. Frustrated
3. Helpless
4. Anxious
5. Irritated
6. Sad
APPENDIX B

TASK ACCOMPLISHMENT

During this last shift, which of the following tasks were not completed to your satisfaction? (Circle all that apply.)

*Nursing tasks*

1. Oral hygiene
2. Skin care
3. Teaching patients and/or family members
4. Comforting and/or talking with patients
5. Developing and/or updating care plans
6. Preparing patients and families for discharge

*Non-Nursing Tasks*

1. Administering medication
2. Charting
3. Treatments
4. Reviewing diagnostic test results
5. Patient history reviews
APPENDIX C

QUALITATIVE DATA

1. What would you identify as the primary reason that you did not have enough time to get everything done on this last shift?

2. Is there anything else you would like to tell us about the incidents you experienced during this last shift?
APPENDIX D

SOCIAL SUPPORT

For each item in this section, please indicate the extent to which you agree or disagree that the following items are present in your current job (0-4 scale; 1 = “strongly disagree,” 2 = “disagree,” 3 = “agree,” and 4 = “strongly agree”).

Collegial Nurse-Physician Relations

1. There is a lot of teamwork between nurses and physicians.

2. Physicians and nurses have good relations.

3. There is a functional collaboration (joint practices) between nurses and physicians.
APPENDIX E

PSYCHOLOGICAL RESILIENCE

Please indicate how much you agree with the following statements as they apply to you over the past month. If a particular situation has not occurred recently, answer according to how you think you would have felt… (1-5 scale; 1 = “not true at all,” 2 = “rarely true,” 3 = “sometimes true,” 4 = “often true,” and 5 = “nearly always true”).

Personal competence/high standards/tenacity

1. I work to obtain my goals, no matter what roadblocks I encounter along the way.
2. Even when things look hopeless, I don’t give up.
3. I believe I can achieve my goals, even if there are obstacles.
4. I take pride in my achievements.
5. I give my best effort, no matter what the outcome may be.
6. I feel in control of my life.
7. I think of myself as a strong person when dealing with life’s challenges and difficulties.
8. I am not easily discouraged by failure.

Trust in one’s instincts/tolerance of negative affect/strengthening of stress

9. In dealing with life’s problems, sometimes you have to act on a hunch, without knowing why.
10. I can make unpopular or difficult decisions that affect other people if is necessary.
11. I prefer to take the lead in solving problems, rather than letting others make all the decisions.

12. I try to see the humorous side of things when I am faced with problems.

13. Having to cope with stress can make me stronger.

14. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.

15. Under pressure, I stay focused and think clearly.

*Positive acceptance of change/secure relationships*

16. I am able to adapt when changes occur.

17. I can deal with whatever comes my way.

18. Past successes give me confidence in dealing with new challenges and difficulties.

19. I have at least one close and secure relationship which helps me when I am stressed.

20. I tend to bounce back after illness, injury, or other hardships.

*Control*

21. I feel in control of my life.

22. During times of stress/crises, I know where to turn for help.

23. I have a strong sense of purpose in life.

*Spiritual Guidance*

24. When there are no clear solutions to my problems, sometimes fate or God can help me.

25. Good or bad, I believe most things happen for a reason.