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Bad Versus Good, What Matters More on the Treatment Floor? Relationships of Positive and Negative Events With Nurses' Burnout and Engagement

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Abstract: Many investigators have reported the stressful aspects of nursing; fewer have focused on nurses' positive work experiences. For this study, we developed a 2×2 typology of positive and negative events related to the tasks of nursing work and the social and organizational context of that work: successes, supports, constraints, and conflicts. We hypothesized that positive events would predict engagement, negative events would predict burnout, and negative events would be more strongly related to both burnout and engagement. In secondary analyses of data from 310 acute care nurses who completed survey measures of workplace events at one time point and burnout and engagement measures approximately eight months later, regression results indicated that both positive and negative work events contributed to engagement, whereas only negative events were related to burnout. The results of dominance analyses established that constraints and conflicts more strongly predicted burnout than did supports and successes. Additionally, consistent with a "bad is stronger than good" perspective, the strongest predictor of engagement was lower constraints, although successes, supports, and conflicts also predicted engagement. © 2015 Wiley Periodicals, Inc.

Keywords: hospital/institutional environment; job related stress; systems research/patterns of care; staffing/scheduling/turnover; work/job satisfaction

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Nurses' occupational health concerns have been the focus of a large body of empirical research, and there is strong evidence that nurses experience negative personal and professional outcomes associated with stressors such as difficult patients, time and equipment shortages, interpersonal conflicts, and inadequate equipment (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; McVicar, 2003; Nakakis & Ouzouni, 2008; Rice, 2011; Zangaro & Soeken, 2007). Although nursing is a demanding profession, it also can be tremendously rewarding. Nurses save lives, alleviate pain and suffering, guide expectant mothers through difficult pregnancies, reassure distressed family members, help patients die with dignity, and teach patients to care for themselves. These positive aspects likely help nurses cope with the challenges of their work but have received far less attention in empirical literature than have stressful aspects of nursing.

Nursing work involves a wide array of positive and negative events, and these events often co-occur (Fredrickson, Tugade, Waugh, & Larkin, 2003). Thus, over any particular period of time, while some nurses may experience mostly

positive or mostly negative work events, most nurses experience a mix of positive and negative events. Widely cited work-stress models (e.g., Karasek & Theorell, 1990; Siegrist, 1996) show that certain work characteristics (control, demands, support, etc.) benefit occupational health, but the models do not directly address the actual events that presumably are the source of these perceptions. Stress research has demonstrated the utility of studying both positive and negative daily events in relation to health outcomes (e.g., Charles, Piazza, Mogle, Sliwinski, & Almeida, 2013; Stone & Neale, 1982; Zautra, Guarnaccia, Reich, & Dohrenwend, 1988). However, fewer researchers have examined event measures designed specifically for nursing or the impact of positive work events experienced by nurses.

With these concerns in mind, the current study had three major purposes. First, we developed a taxonomy of work events to distinguish events as 1) positive or negative, and 2) related to job performance or to contextual aspects of the workplace. We intended this taxonomy to be theoretically generalizable in terms of the broad dimensions assessed, but specific events within each dimension were chosen based on their importance to nurses. To evaluate this taxonomy, we created and validated a new measure of events experienced by nurses in acute care settings.

Second, we sought to determine the relationships of positive and negative events with burnout and engagement. Burnout is a widely recognized occupational health threat for nurses, and in several reviews authors have demonstrated the links between burnout and other important health and occupational outcomes (e.g., Kay-Eccles, 2012; Toh, Ang, & Devi, 2012; Vargas, Cañadas, Aguayo, Fernández, & de la Fuente, 2014). Although not as heavily studied as burnout, work engagement has received recent attention from nursing researchers. In fact, Bargagliotti (2012) characterized engagement as "the central issue for 21st century professionals and specifically for registered nurses" (p. 1414).

The dominant approach to studying burnout and engagement is through the job demands-resources model or JD-R (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). In the JD-R model, dual processes link the work environment to health and performance outcomes: demands and resources influence job strain (typically captured by measures of burnout) and motivation (typically captured by measures of engagement). Burnout and engagement are proposed to be proximal antecedents to outcomes such as employee retention and occupational health.

A great deal of research supports the basic propositions of the JD-R model (e.g., Bakker & Demerouti, 2007; Bakker, Demerouti, de Boer, & Schaufeli, 2003; Bakker, Demerouti, & Schaufeli, 2003; Crawford, Le Pine, & Rich, 2010; Halbesleben, 2010). However, researchers have focused much more on general perceptions of demands and resources than on specific work experiences. Our study extends JD-R research by testing the relationships of positive and negative event measures with burnout and engagement.

Finally, although positive psychology advocates emphasize the added value of positive aspects of the workplace, little research exists on the relative importance of positive and negative work experiences in explaining variance in occupational health outcomes. The question of whether positive or negative events are more influential with regard to burnout and engagement is fundamental to the study of occupational health because it informs whether interventions should focus on improving positive aspects of the workplace, ameliorating problems, or both. Moreover, as we will show below, addressing this question extends general psychological research on the relative influence of bad and good events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).

Developing a Typology of Everyday Workplace Events

Weiss and Cropanzano (1996) defined the term event as "a happening, especially an important happening" and "something that occurs in a certain place during a particular time" (p. 31). Routine workplace occurrences would not necessarily qualify as events. Events are distinctive or unusual occurrences, such as a conflict with a coworker about a treatment plan or a sudden change in a patient's health status. In the current study we focused instead on everyday work experiences because they account for significantly more variability in health symptoms than do major life events (e.g., DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982). Daily work events also represent an underlying cause of the relationship between major events and well-being (Pillow, Zautra & Sandler, 1996). Just as major life events such as job loss or a divorce can be viewed as composites of numerous daily experiences, employees' perceptions of working conditions such as supervisor support, role ambiguity, control, and other general qualities of their work environment are shaped by the multitude of positive and negative events they experience each day at work.

Nurses' general work environment perceptions are the typical focus of study, but we assessed how often nurses reported experiencing four types of events in a specified time frame. Table 1 illustrates a typology of the four general classes of events, based on two critical distinctions: (1) the valence of the event (i.e., whether it is perceived as positive or negative) and (2) whether the event concerned the successful performance of one's job or the interpersonal context of work. Successes are positive performance-related events, supports are positive interpersonal context-related events, constraints are negative performance-related events, and conflicts are negative interpersonal context-related events.

Positive Versus Negative Events

Perhaps the most important characteristic of an event is its valence—whether it is perceived as positive, negative, or

Table 1. A 2 × 2 Typology of Workplace Events

	Positive Events: Events generally appraised as positive, or events that typically have a positive effect on one's well-being	Negative Events: Events generally appraised as negative, or events that typically have a negative effect on one's well-being
Performance-related Events: Events that primarily affect employees' abilities to perform their jobs	Successes Example, I overcame a challenge at work	Constraints Example, I did not have enough time to complete all of my nursing tasks
Context-related Events: Events that primarily affect the social and organizational context of work	Supports Example, a coworker complimented my work	Conflicts Example, coworkers doubted my judgment on a matter for which I had responsibility

neutral. Our typology assumes that many events in nursing are generally or consensually experienced as positive or negative. For example, most nurses would view a verbal confrontation with a patient as a negative experience, while learning a new skill would be a positive experience. This approach is consistent with research on the challenge-hindrance model of stressors (e.g., Crawford, LePine, & Rich, 2010; LePine, LePine, & Jackson, 2004), in which some types of demands (e.g., job complexity) tend to be experienced as positive or challenges, whereas others tend to be experienced as negative or hindrances (e.g., ambiguity, conflict). We took a slightly different approach by including events that do not fit the traditional conceptualization of potential stressors, such as being thanked by a patient, but are common work experiences for nurses. As we will describe in detail below, we created a list of events that nurses generally agreed were positive or negative and employed a panel of expert judges to assess the content validity of our items. Experts offered distinct views of events based on their unique experiences. For example, while a lay person might view the death of a patient as a stressor, our conversations with nurses revealed that they typically viewed helping patients die with dignity as a rewarding experience (i.e., a positive event).

Performance-Related Versus Context-Related Events

Most events people experience at work reflect their own behavior and/or the behavior of others in their work environments. Industrial psychology researchers on job performance suggest two broad types of such behaviors. Task performance (sometimes called in-role behavior) is behavior related to the performance of one's core job functions. For a nurse, task performance would include following proper procedures for disposing of biohazards, accurately entering data in medical records, and administering appropriate treatments/care to patients. Contextual performance (sometimes called organizational citizenship behavior or extra-role behavior) involves actions that facilitate the social and organizational context of work. Examples of contextual performance include helping a coworker who is behind on his/her tasks, tolerating the minor hassles of daily organizational life, and keeping informed on organizational issues (Borman & Motowidlo, 1993).

Positive and negative events that primarily concern nurses' performance of their job tasks we called performance-related events, and events which primarily affect the social and organizational context of nursing work we called context-related events. Successes are positive performance-related events, such as learning a new job skill or helping deliver a baby; supports are positive interpersonal interactions in the context of work, such as having one's contributions acknowledged by a supervisor or receiving help from a coworker. Similarly, constraints are negative events that interfere with the ability to perform one's job successfully, such as insufficient staff, lacking necessary resources or information, and excessive overtime. Conflicts refer to negative social context events, such as incivility and discrimination from coworkers or rude treatment from patients.

The Present Study: Positive and Negative Events, Burnout, and Engagement

The JD-R model (Bakker & Demerouti, 2007; Demerouti et al., 2001) provides a framework for understanding how positive and negative events relate to health outcomes and has been successfully used in prior nursing research (e.g., Demerouti et al., 2000; Gabriel, Erickson, Moran, Diefendorff, & Bromley, 2013). In the JD-R model, job characteristics are either demands or resources. Demands are the physical, social, psychological, or organizational characteristics of a job that require sustained effort; examples of demands include role or task overload, emotional demands, and environmental stressors (Bakker, Demerouti, & Verbeke, 2004). Resources are aspects of a job that help employees accomplish work tasks, reduce demands, or enable personal growth, such as having social support or the equipment one needs to complete the job.

In the JD-R model, two distinct pathways link demands and resources to health. Demands are thought to be associated with mental and physical resource depletion,

which leads to adverse health outcomes through burnout (Fox, Dwyer, & Ganster, 1993; Sanne, Mykletun, Dahl, Moen, & Tell, 2004). Resources have an energizing motivational function and lead to positive outcomes through their effects on employee engagement. Extending this model to the study of events, we proposed that positive and negative events would influence burnout and engagement through similar processes. That is, negative events such as constraints and conflicts require coping efforts that deplete mental and physical resources, leading to burnout. Similarly, positive events such as successes and supports create greater coping resources and have an energizing effect that better enables people to perform their jobs.

Burnout in this study referred to nurses' feelings of emotional exhaustion, cognitive weariness, and physical fatigue (Shirom & Melamed, 2006). According to Conservation of Resources theory (Hobfoll, 1989), burnout occurs as a result of chronic/frequent depletion of emotional, cognitive, and physical resources. Negative events—conflicts and constraints—presumably create higher levels of demands that require sustained coping effort (Bakker et al., 2004). Therefore, we expect nurses who experience more negative events to experience adverse mental and physical health outcomes, most notably burnout. We proposed:

Hypothesis 1: Negative workplace events (constraints and conflicts) will be related positively to burnout.

In JD-R theory, job resources enhance employee engagement (Bakker et al., 2004), a positive and fulfilling state of mind characterized by vigor, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006). Demerouti et al. (2001) found that broad job resources such as feedback, control, and support were related to the dedication facet of engagement. Similarly, Schaufeli and Bakker (2004) found that job resources, including social support, supervisory coaching, and feedback, predicted most facets of engagement across several samples. They posited that job resources affect engagement through motivational processes. That is, job resources motivate employees through intrinsic processes by fostering growth, learning, and development. Alternately, resources affect engagement through extrinsic processes, because resources are essential in meeting goals at work.

Positive events may affect resources through either of these processes. Regarding intrinsic processes, positive events—particularly successes—might help fulfill basic human needs related to intrinsic motivation. A successful patient interaction, for example, might increase engagement by meeting nurses' needs for competence and relatedness. Regarding extrinsic processes, positive events—particularly support events—might help nurses complete their work goals. For example, job task-related help from a coworker would be a positive event facilitating work goal accomplishment. As such, we expect the experience of positive workplace events to be related to engagement. We proposed:

Hypothesis 2: Positive workplace events (successes and supports) will relate positively to engagement.

Bad Versus Good: The Relative Effects of Positive Versus Negative Events

Efforts have been made to show that job demands also predict engagement (e.g., Bakker et al., 2003a; Van den Broeck, De Cuyper, Witte, & Vansteenkiste, 2010). We sought to extend this literature by testing predictions about the relative strength of contributions of positive and negative events to burnout and engagement. Health psychology researchers have reported that positive and negative events have distinct effects on individuals (Zautra, Affleck, Tennen, Reich, & Davis, 2005). Positive emotional experiences are associated with a variety of beneficial effects to information processing (Isen, 2000), creativity (Lucas & Diener, 2003) and health (e.g., Fredrickson, 2000, 2001).

This perspective has received little direct attention in workplace research. On the other hand, a great deal of research suggests that negative stimuli/events have stronger effects on people than positive stimuli or events. Baumeister et al. (2001) reviewed a wide range of literature concerning the relative strength of positive and negative experiences and concluded that compared with positive experiences, interactions, feedback, etc., negative events seem to have a consistently stronger influence, supporting a “bad is stronger than good” (BSG) proposition. They interpreted this finding in part through an evolutionary psychology lens; negative stimuli (e.g., threats) typically require an immediate response, and people who can respond quickly are likely to have a survival advantage (Pratto & John, 1991). People also typically devote more attentional resources to negative stimuli (Ito, Larsen, Smith, & Cacioppo, 1998) and have better recall for negative stimuli than for positive stimuli (Pratto & John, 1991), which helps explain why the adverse health effects of resource losses are stronger than the health benefits of resource gains (Hobfoll, 1989). This perspective suggests that, compared with positive events, negative events should be more strongly related to both positive and negative health-related outcomes. Based on this rationale, we proposed:

Hypothesis 3: Negative events (constraints and conflicts) will be more strongly related to both burnout and engagement than will positive events (successes and supports).

Method

Recruitment

This study consisted of secondary analyses of data gathered from a larger study, the Oregon Nurse Retention Project (ONRP), focused on the relationships among nurses' work experiences, occupational health, and retention. All participants were members of a nurses' professional organization in the Pacific Northwest region of the United States. (All data collection was conducted with the approval of the Portland State University Institutional Review Board).

Sample recruitment was conducted in a multi-step procedure designed to encourage participation of nurses across the region. First, members of the research team attended several conferences sponsored by the state nurses' association as well as at the annual convention of the nurses' association. Announcements were made to conference attendees regarding the aims of the project and how they could participate. In one case, team members staffed a booth where nurses were informed about the project and directly invited to participate. The nurses' association also included information about the study in its newsletters and in postcards mailed to members.

Interested participants registered for participation by providing their contact information, either in a hard copy form or on a website constructed for this purpose. In each case, participants completed a brief demographic profile including questions about their personal characteristics such as age, gender, job type, geographical location, and their work schedules. After registering, participants received the baseline survey, informed consent, and participation incentive information. Participants received $20 compensation for returning the Wave 1 survey and $10 for submitting the Wave 2 survey. Additional $50 raffle prizes were offered to participants at both time points to further incentivize participation. Participants provided personal contact information so they could receive the study incentives but for data analyses were assigned an anonymous participant ID code that was created and managed by the research team and kept in a secure location separate from the data in order to maximize the security of participant information.

While participants could choose to complete either web-based or pencil and paper versions of the surveys, nearly all (86%) of the final sample completed both surveys online. The project website (www.onrp.webnode.com) provides additional information about the study, the recruiting process, and the sample.

Sample

The 428 registered nurses who completed the Wave 1 survey also were invited to participate in the Wave 2 follow-up survey approximately 7–8 months later; 330 provided usable data. These 330 matched cases (77% of Wave 1 respondents) comprise the sample for our study. The participants came from 29 different urban, suburban, and rural municipalities distributed across the state. With listwise deletion of missing values, the *N* for hypothesis testing was 310 (94% of the Wave 2 respondents).

The sample was predominantly female (92%) and Caucasian (92%) with an average age of 45.7 ($SD = 11.1$) and an average of 18 years of experience in nursing ($SD = 12.1$). The majority of participants worked day shifts (61%) and were employed full-time (59.8%), averaging approximately 35 hours of work per week. Most participants (87.8%) worked in hospital or acute care settings, and 42.1% held at least bachelor's degrees in nursing. The most common specialties included critical care/neonatal intensive care (23%), general medicine/general surgical (21%), operating room/post anesthesia care (16%), maternal child/obstetrics (14%), and emergency/trauma (11.5%). Other specialties with smaller representations included pediatrics, behavioral health, psychiatry, women's health, end of life care, home health, school nurse, gerontology, and community or public health.

Although we lacked specific data for direct statistical tests, participants were generally representative of the nurses' association membership, with the exception of being somewhat older and with more years of work experience. The participants who completed both the Wave 1 and Wave 2 survey and those who completed only Wave 1 (i.e., who dropped out) did not differ in gender, age, work status, occupational tenure, organizational tenure, position tenure, shift typically worked, or hours worked.

Measures

Overview of measure development process.

The measurement development process included most of the coauthors (two academic faculty with PhDs in Industrial-Organizational and Social Psychology and five doctoral students in applied psychology), a seasoned nurse researcher (20+ years of experience and PhD, RN, and CNS credentials) from the nurses' professional organization that worked with the team on data collection, and three undergraduate psychology students. The research team spent approximately nine months in weekly meetings focused on selecting, refining, and developing measures for this research and other design issues. Our goal was to create event-based items that would capture events commonly experienced by nurses and that participants would respond to with an indication of frequency of occurrence within a defined time frame (in our case, 30 days).

Once the team had a preliminary version of the Wave 1 survey, we held a focus group meeting with eight nurses, all of whom had 10+ years of work experience in acute care settings. The general purposes of this meeting included (1) generating a rough estimate of the survey completion time, (2) obtaining feedback on specific items, instructions, etc., and (3) checking our work on the initial list of events. We then made further refinements to the measures following a second focus group, composed of six nurses with similar characteristics as the first focus group. The focus groups generally reacted favorably to the surveys, and relatively few changes were suggested. Examples of specific changes included minor changes to the grammatical structure of items (e.g., changing “having equipment not be available because” to “equipment was not available because”), clarifying the specific time frame of the event instructions (which was originally open-ended and was changed to past 30 days), adding terms to clarify items (e.g., adding “in scheduled shift” to a question about not having enough time to complete work tasks), and

distinguishing positive and negative patient deaths, such as changing an item about having a patient die to a negative item about having a patient die unexpectedly and adding a positive item (suggested by one of the nurses) about helping a patient die with dignity.

Negative work events (gathered at time 1). We generated a list of 67 negative events from prior occupational health and nursing literature and from the team meetings and focus groups described above. Participants rated each item in terms of how often they had experienced it in the past 30 days, using response options ranging from *never* (coded as a 0) to *very often* (coded as a 5). Table 2 shows the types of negative events we assessed, along with sample items and sources where appropriate.

Values conflicts refer to being asked to do things that conflict with the nurses' values/judgment. Equipment/technical constraints refer to performance problems associated with technology/equipment problems. Information constraints refer to problems associated with lacking needed information to perform. Quantitative workload refers to having more work than the nurse could effectively handle (i.e., too much work). Qualitative workload refers to having work demands that exceed the nurse's knowledge, training, or experience (i.e., work that is too difficult or complex). Staff composition refers to staffing demands such as staffing insufficiency (lacking enough personnel) and staffing mix (lacking personnel with the right types of training). Patient violence refers to physical assaults or the threat thereof from patients/families. Incivility refers to low-intensity mistreatment. Death and dying refers to negative events associated with dying patients.

We drew on other sources (cited in Table 2) for some of the items. In those cases, we reviewed the items, selected those that were appropriate for goals of the study, made minor modifications in wording where necessary (e.g., so that the items reflected events rather than broad perceptions of the work environment), and revised the instructions to reflect the new frequency response format. For example, Aiken and Patrician's (2000) Revised Nursing Work Index contains a single item assessing whether the nurse was placed in a position of having to do things against his or her judgment. We drew from this content to create two items, one reflecting conflicts with nursing judgment and one reflecting conflicts with the nurse's personal beliefs or values. Similarly, to capture events related to workplace incivility, we adapted items from the Workplace Incivility Scale developed by Cortina Magley, Williams, and Langhout (2001). The original scale had seven items with instructions referring to behaviors by “superiors or coworkers.” experienced in the past five years. We changed the response scale to 30 days, reduced the number of items to three, wrote one new item, and replaced the phrase “superiors or coworkers” with separate items for physicians, managers, coworkers and patients' families (i.e., 4 items per source). Table 3 shows the final list of negative events used in the study. The final constraints and conflicts indices were calculated as the statistical average of the events corresponding to each index.

Positive work events (gathered at time 1). We used the process described above to generate the positive work events items, including team member brainstorming, consulting relevant literature, and discussions with focus groups of nurses. A pool of 33 items was created. Items written to

Table 2. Summary of Sources for Initial Set of 67 Negative Workplace Events Items

Event Type	Number of Items	Original Source	Sample Item
Values conflicts	2	Aiken and Patrician (2000)	I was asked to provide patient care that was against my personal beliefs or values.
Equipment/technical constraints	6	Gurses and Carayon (2007)	I had to use equipment that was in poor condition
Information constraints	4	Research team	I received incomplete or unclear information from other people
Quantitative workload	9	French et al. (2000)	I worked too many hours in a shift
Death and dying	5	French et al. (2000)	I experienced the death of a patient with whom I had developed a close relationship
Qualitative workload	4	Research team	I had duties for which I did not have sufficient education and/or experience
Staff composition	11	Research team	Scheduled personnel were late for a shift
Patient violence	4	Research team	I was physically assaulted by patients or their family members
Incivility from physicians	4	Cortina et al. (2001)	Physicians put you down or were condescending to you
Incivility from coworkers	4	Cortina et al. (2001)	Coworkers used abusive or degrading language towards you
Incivility from managers	4	Cortina et al. (2001)	A manager paid little attention to your statements or showed little interest in your opinions
Incivility from patients/families	4	Cortina et al. (2001)	Patients/families doubted your judgment on a matter for which you had responsibility
Discrimination	6	French et al. (2000)	I was discriminated against due to my age
Death and dying	5	French et al. (2000)	

Note. The full list of negative event items is available from the first author upon request.

Table 3. Item-Level Statistics for Positive Events in the ONRP Nursing Events Indices

Item	*M*	*SD*	Skewness	Kurtosis	Item-Total Correlation	Content Validation Coding
Successes						
I developed a close bond with my patient	3.80	.98	−.50	−.24	.57	100%
I educated my patient/family about his/her condition(s)	4.16	.96	−1.20	1.22	.64	100%
I figured out how to perform a difficult task	3.42	.95	−0.13	−.13	.64	100%
I had a patient whose condition unexpectedly improved	2.85	1.11	−.17	−.52	.62	100%
I helped my patient die with dignity	2.36	1.41	.50	−1.17	.53	100%
I helped my patient physically feel better	4.29	.79	−1.17	1.90	.60	100%
I helped save the life of a patient	2.98	1.18	−.19	−.65	.57	100%
I overcame a challenge at work	3.72	.90	−.28	−.21	.63	100%
I provided emotional support to my patient/patient's family	4.56	.72	−2.05	5.57	.53	100%
I realized I made a difference in someone else's life	4.02	.80	−.41	−.25	.68	100%
I successfully implemented a challenging procedure for my patient	3.36	1.15	−.30	−.68	.65	100%
I taught my patient a complex self-care task	2.81	1.19	.19	−.70	.68	100%
Supports						
A coworker complimented my work	3.43	.85	−.08	.08	.65	86%
A coworker thanked me for my work	3.78	.91	−.44	−.12	.72	100%
A physician complimented my work	2.81	.97	.00	−.31	.55	86%
A physician helped me when I really needed it	2.87	.98	−.08	−.36	.53	100%
A physician thanked me for my work	2.96	1.09	−.96	.75	.61	100%
Another nurse helped me when I really needed it	4.06	.87	−.81	.64	.65	100%
At work, my coworkers and I shared a laugh about something	4.44	.72	−1.04	.25	.61	100%
I helped a fellow nurse when s/he needed me	4.28	.77	−.76	.11	.59	100%
I responded to the emotional needs of a fellow worker	3.87	.86	−.31	−.21	.62	100%
I shared knowledge about nursing practice with a coworker	3.87	.86	−.27	−.53	.62	86%
My charge nurse thanked me for my work	3.38	1.08	−.37	−.30	.70	100%
My manager complimented my work	2.89	1.07	.05	−.52	.65	86%
My manager helped me when I really needed it	2.86	1.22	−.01	−.96	.62	100%
Other nurses shared knowledge with me about nursing practice	3.79	.87	−.36	−.12	.57	86%
People in my unit went out of their way to be nice to each other	3.97	.86	−.56	.16	.59	100%

Notes. $N = 309–330$. *M*, mean; *SD*, standard deviation. Item-total correlation is the uncorrected item-total correlation. Content validation coding reflects the percentage of judges/coders who sorted the item into the respective category.

capture successes included "I helped save the life of a patient," "I overcame a challenge at work," and "I taught my patient a complex self-care task." Items written to capture supports included "My manager complimented my work," "A coworker thanked me for my work," and "Another nurse helped me when I really needed it." The same time frame instructions and response formats were used as with negative events. Table 4 shows the final list of positive events used in the study. The final successes and supports indices were formed by calculating the statistical average of the items corresponding to each index.

Formative validity of the events measures. Validation evidence to support our typology necessarily differed from traditional psychometric evidence because the event measures are formative (created by of potentially unrelated components) rather than reflective in nature (Bollen & Lennox, 1991; Diamantopoulos & Siguaw, 2006; Diamantopoulos & Winklhofer, 2001; Edwards & Bagozzi, 2000). In reflective measures, an individual's score is assumed to be caused by the respondent's standing on the relevant latent construct as a whole, whereas in formative measurement, latent constructs are influenced by the

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I overcame a challenge at work	3.72	.90	−.28	−.21	.63	100%
I provided emotional support to my patient/patient's family	4.56	.72	−2.05	5.57	.53	100%
I realized I made a difference in someone else's life	4.02	.80	−.41	−.25	.68	100%
I successfully implemented a challenging procedure for my patient	3.36	1.15	−.30	−.68	.65	100%
I taught my patient a complex self-care task	2.81	1.19	.19	−.70	.68	100%
Supports						
A coworker complimented my work	3.43	0.85	−.08	.08	.65	86%
A coworker thanked me for my work	3.78	.91	−.44	−.12	.72	100%
A physician complimented my work	2.81	.97	0.00	−.31	.55	86%
A physician helped me when I really needed it	2.87	.98	−.08	−.36	.53	100%
A physician thanked me for my work	2.96	1.09	−.96	.75	.61	100%
Another nurse helped me when I really needed it	4.06	.87	−.81	.64	.65	100%
At work, my coworkers and I shared a laugh about something	4.44	.72	−1.04	.25	.61	100%
I helped a fellow nurse when s/he needed me	4.28	.77	−.76	.11	.59	100%
I responded to the emotional needs of a fellow worker	3.87	.86	−.31	−.21	.62	100%
I shared knowledge about nursing practice with a coworker	3.87	.86	−.27	−.53	.62	86%
My charge nurse thanked me for my work	3.38	1.08	−.37	−.30	.70	100%
My manager complimented my work	2.89	1.07	.05	−.52	.65	86%
My manager helped me when I really needed it	2.86	1.22	−.01	−.96	.62	100%
Other nurses shared knowledge with me about nursing practice	3.79	.87	−.36	−.12	.57	86%
People in my unit went out of their way to be nice to each other	3.97	.86	−.56	.16	.59	100%

Notes. $N = 309–330$. *M*, mean; *SD*, standard deviation. Item-total correlation is the uncorrected item-total correlation. Content validation coding reflects the percentage of judges/coders who sorted the item into the respective category.

nature of their component indicators (Edwards & Bagozzi, 2000). The classic example of formative measurement is socioeconomic status (SES), which is a composite of education, income, occupation, and residence; increases in any one of these indicators would not necessarily be expected to be associated with increases in the others. In other words, "people have high socio-economic status because they are wealthy and/or educated; they do not become wealthy or educated because they are of high socio-economic status" (Nunnally & Bernstein, 1994, p. 449). In our case, two events could both be classified as successes at work but not necessarily be mutually influenced by an underlying successes construct. Rather, the successes construct would be defined by an individual's standing on the particular set of events.

The most important practical implication of formative measurement is that there is no expectation that items within a formative measure will be highly correlated or cluster in factors; neither high nor low inter-item correlations necessarily indicate anything about the quality of the items

(Diamantopoulos & Winklhofer, 2001). Because of this, standard validation characteristics such as internal consistency and factor structure should not be used to evaluate the psychometric quality of formative measures. Instead, Diamantopoulos and Winklhofer offered four criteria: (1) content specification, (2) indicator specification, (3) indicator collinearity, and (4) external validity.

Content specification involves the extent to which the relevant content domain has been identified and described by the researchers. In our case, the two-dimensional typology provided a clear typology of the content domain we targeted.

Indicator specification involves the extent to which the indicators adequately capture each aspect of the relevant content domain. We made efforts to assure good indicator specification through our focus group discussions with nurses. We also conducted a content analysis of the original pool of items, in which seven advanced social and organizational psychology graduate students were provided with the list of events and definitions of the typology categories and asked to sort the events into constraints, conflicts, supports, and successes. Items with less than 85% agreement were omitted (8 negative and 6 positive items). This process produced a set of highly face-valid items that were directly relevant to nursing practice and that clearly fit into one of our four categories. The final pool of 12 successes, 15 supports, 45 constraints, and 12 conflicts items is shown in Tables 3 and 4, with item-level descriptive statistics and item-total correlations (although, as noted above, low item-total correlations are not necessarily problematic in formative measures). We labeled this the ONRP Nursing Event Index (ONRP-NEI).

Indicator collinearity refers to the idea that formative indicators generally should not be highly correlated with one another, which would suggest possible conceptual redundancy among the formative indicators and create statistical problems for assessing the relative contributions of different indicators to the overall construct (not a goal of the current study but perhaps important for future work). We assessed collinearity by examining the patterns of correlations among the items within each index. There were 66 correlations among the success items, 52 (78.8%) of which were below .40 (none were larger than .60). There were 105 correlations among the support items, 79 of which (75.2%) were below .40 (1 was larger than .60). There were 990 correlations among the constraint items, 774 of which (78.1%) were below .40 (59 were larger than .60). There were 66 correlations among the conflict items, 47.0% of which were below .40 (11 were larger than .60). The general pattern of low to moderate correlations among the events supports low collinearity among indicators.

External validity is the extent to which the indicators relate to other measures. In our case, our primary concern with external validity was the relative strength of contribution of each of the event categories in predicting burnout and engagement, and particularly whether or not the positive events contributed above and beyond the negative events. Thus, the results reported here on the relationship between event exposure and burnout/engagement inform the external validity of the event measure.

Burnout (gathered at time 2). Burnout was measured using the Melamed Burnout Measure (SMBM, Shirom & Melamed, 2006), administered in the second wave of data collection. This scale consists of 14 items measuring the three dimensions of burnout: physical fatigue (6 items), cognitive weariness (5 items), and emotional exhaustion (3 items). Items referring to "customers" were modified to reflect "patients" in order to be appropriate for nurses. Participants were asked to indicate how often they had experienced each item during the past 30 days, where $1 = \textit{never}$, and $5 = \textit{always}$. Although this is slightly different from the original scoring system which used a 7-point scale ranging from $1 = \textit{never}$ to $7 = \textit{always}$, comparisons of 5- and 7-point versions of the same measure typically show little difference in validity (Dawes, 2008). We calculated the burnout score as the statistical average of the 14 items ($\alpha = .94$).

Although somewhat less well-known than the Maslach Burnout Scale, the SMBM has a stronger theoretical connection to the physiological pathways linking burnout to health (Melamed, Shirom, Toker, Berliner, & Shapira, 2006; Shirom, 2003), as well as to the resource depletion processes depicted in Conservation of Resources theory and the JD-R model. Melamed et al. (2006) provided a discussion of the theoretical paths linking burnout to cardiovascular disease as one example. In a direct comparison of the two measures, Shirom and Melamed (2006) found that the SMBM had comparable internal consistency reliability as the MBI ($\alpha = .92$ in in two samples compared to .87 and .90 for the MBI). The predictive validity of the SMBM is supported by evidence that a higher overall score is associated with outcomes such as increased risk of obesity (Fried et al., 2013, $\beta = .19$, $p < .01$), musculoskeletal pain (Armon, Melamed, Shirom, Berliner, & Shapira, 2010; odds ratio = 2.09), and insomnia (Armon, Shirom. Shapira, & Melamed, 2008; $\beta = 06$, $p < .05$ in two samples). Shirom's website (http://www.shirom.org/arie/index.html) provides extensive additional documentation of validity of the measure.

Work engagement (gathered at time 2). Work engagement was measured using the short version of the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2006). This scale consists of 9 items measuring vigor, dedication, and absorption, with 3 items each, and had good internal consistency ($\alpha = .92$). The same instructions and rating scale were used as for the burnout scale. We used the statistical average of the engagement items as the overall measure of engagement.

Covariates. The covariates were obtained from a brief demographic form completed as part of the registration process (i.e., prior to completing the Wave 1 survey). We decided to control for organizational tenure and the average number of hours worked per week. We judged it important to consider how long the nurses had been in their organization,

as over time they could potentially adapt and/or improve their ability to manage events at work, thus increasing their experience of positive events and reducing their experience of negative events. Similarly, nurses who worked more hours would be expected to have a higher base rate of exposure to any events, and we saw it as important to adjust for this possibility in our analyses linking event exposure to burnout, as well as in considerations of the relationship among the event dimensions. As shown in Table 5, both covariates were significantly correlated with burnout but not with engagement. However, given the burnout correlations, we decided to include them as controls in both sets of hypothesis tests.

Data Analysis

We tested the main effect hypotheses (Hypotheses 1 and 2) using hierarchical regression (with listwise deletion of missing data). Control variables were entered in Step 1, and predictors (negative events for demands and positive events for engagement) were entered in Step 2. In order to test the hypotheses assessing the relative predictive strength of events on each outcome, both types of events were entered into the regression equation simultaneously in Step 3. However, given that standardized betas can be potentially uninterpretable due to multicollinearity (LeBreton & Tonidandel, 2008), we also conducted a general dominance weight analysis, which provided an estimate of the relative importance of each predictor by comparing results from several regression models (Azen & Budescu, 2003). Each predictor's contribution is assessed in terms of its unique relationship with the criterion (e.g., the main effect of the predictor), as well as its relative contribution in the presence of other predictors (e.g., main effect of the predictor while controlling for other predictors). The resulting estimates produce a General Dominance Index (*GDI*) with which predictors can be directly compared to determine their relative strength, while accounting for multicollinearity (LeBreton & Tonidandel, 2008; Tonidandel & LeBreton, 2011). The *GDI* may be interpreted as an adjusted *R*-squared for the outcome of interest when regressed on each predictor while accounting for correlations among the predictors. Thus, a larger *GDI* indicates larger relative contribution of a predictor to an outcome variable.

Results

The events measures showed patterns of correlations that mostly, but not completely, fit our expectations. First, we noted moderate positive correlations of successes and supports ($r = .35$, $p < .01$) and conflicts and constraints ($r = .53$, $p < .01$) such that nurses who more frequently experienced events in one of the general categories of positive (negative) events also were more likely to experience events in the other. Second, the positive and negative classes of the same type of events (i.e., performance-related or context-related) were moderately associated, with supports being negatively related to conflicts ($r = -.35$, $p < .01$) and successes being moderately positively related to constraints ($r = .42$, $p < .01$). Third, different types of events were less strongly-related to each other: successes were weakly but significantly positively related to conflicts ($r = .11$, $p < .05$) and supports obtaining weak negative relationship that was not statistically discernible ($r = -.07$, $p = n.s.$). Descriptive statistics, reliability estimates and correlations among all study variables are provided in Table 5.

The correlations of the events measures with the burnout and engagement measures supported Hypotheses 1 and 2, as successes ($r = .23$, $p < .01$) and supports ($r = .31$, $p < .01$) were weakly and moderately (respectively) positively related to engagement, and both constraints ($r = .44$, $p < .01$) and conflicts ($r = .39$, $p < .01$) were moderately positively related to burnout. The general pattern of correlations supported our typology in that different kinds of events were correlated but not so highly related as to be indistinguishable. They were also related to burnout and engagement in expected patterns. One surprising finding was the positive relationship of successes with conflicts and constraints, an issue we return to in the discussion.

Table 6 summarizes the findings from the regression analyses. Hypothesis 1, that negative workplace events

Table 5. Descriptive Statistics, Correlations, and Reliability Estimates for all Study Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
Tenure	17.96	12.05								
Average hours	35.19	10.16	−.17							
Successes	3.52	.61	−.10	.15	*.81*					
Supports	3.55	.57	−.02	.11	.35	*.84*				
Constraints	2.39	.61	−.05	.18	.42	−.07	*.94*			
Conflicts	1.75	.59	.07	.06	.11	−.35	.53	*.90*		
Engagement	3.25	.73	.08	.01	.23	.31	−.27	−.21	*.92*	
Burnout	2.55	.74	−.12	.13	.05	−.22	.44	.39	−.60	*.94*

Notes. $N = 310$ with listwise deletion of missing values. Significance values of the correlation coefficients are as follows: $|r| \geq .10 = p < .05$; $|r| \geq .15 = p < .01$. Internal consistency estimates for multi-item scales are shown in italics.

would be positively related to burnout, was fully supported. Both conflicts ($\beta = .22$, $p < .01$) and constraints ($\beta = .32$, $p < .01$) were related positively to overall burnout after controlling for tenure and hours worked. Hypothesis 2, that positive workplace events will relate positively to engagement, was also supported. Both supports ($\beta = .24$, $p < .01$) and successes ($\beta = .18$, $p < .01$) were related significantly and positively to engagement, while accounting for the control variables.

Hypothesis 3, that negative events would account for more variance in both burnout and engagement than would positive events, also was tested using regression and dominance analyses. The regression results generally supported this hypothesis, with stronger evidence noted for constraints as a predictor and for predictors' effect on the outcome of burnout as compared with engagement. First, we examined burnout as an outcome with all types of events being entered into the equation together (following entry of the control variables). Constraints ($\beta = .39$, $p < .01$) and conflict ($\beta = .17$, $p < .01$) events significantly predicted burnout, whereas success and support events did not. The dominance analysis supported these findings, as demands explained the most variance in burnout ($GDI = .15$), followed by conflicts ($GDI = .09$), supports ($GDI = .03$), and successes ($GDI = .01$).

Next, we examined engagement as an outcome, once again adding all event types into the equation simultaneously. The regression results were more split, with constraint events having the strongest relationship with engagement ($\beta = -.42$, $p < .01$), followed by success events ($\beta = .37$, $p < .01$), support events ($\beta = .13$, $p < .05$), and conflict events ($p = n.s.$). The dominance analysis revealed a similar pattern of findings, with constraints explaining the most relative variance in engagement ($GDI = .09$), followed by successes ($GDI = .08$), supports ($GDI = .06$), and conflicts ($GDI = .02$).

Discussion

A great deal of nursing research emphasizes the work-related threats to nurses' mental and physical health (e.g., Demerouti et al., 2000; McVicar, 2003; Nakakis & Ouzouni, 2008; Rice, 2011; Zangaro & Soeken, 2007), but the positive aspects of nursing work have received disproportionately less attention from researchers, and little is known about the relative importance of positive and negative workplace events for nurses' occupational health. In this study, we proposed a general taxonomy of positive and negative workplace events in which events are categorized

Table 6. Relationship of Positive and Negative Events With Burnout and Engagement in Hierarchical Regression ($N = 310$)

Dependent Variable: Burnout

	Step 1			Step 2			Step 3			
Measures	*b*	*SE*	β	*b*	*SE*	β	*b*	*SE*	β	*GDI*
Tenure	−.01	0.00	−.11	−.01*	0.00	−.11*	−.01*	0.00	−.13*	
Hours worked	.01*	0.00	.12*	.00	0.00	.04	.00	0.00	.05	
Constraints				.40**	0.07	.32**	.46**	0.08	.39**	0.15
Conflicts				.27**	0.07	.22**	.21**	0.08	.17**	0.09
Successes							−.11	0.07	−.09	0.01
Supports							−.12	0.07	−.10	0.03
R^2		0.02		.26			.28			

Dependent Variable: Engagement

	Step 1			Step 2			Step 3			
Measures	*b*	*SE*	β	*b*	*SE*	β	*b*	*SE*	β	*GDI*
Tenure	.01	0.00	.09	.01	0.00	.11	.01*	0.00	.11*	
Hours worked	.00	0.00	.03	.00	0.00	−.03	.00	0.00	.03	
Constraints							−.51**	0.08	−.42**	0.09
Conflicts							.01	0.08	.00	0.02
Successes				.23**	0.07	.18**	.47**	0.08	.37**	0.08
Supports				.31**	0.06	.24**	.17*	0.08	.13*	0.06
R^2		0.01		.09			.24			

Notes. *b* refers to the unstandardized beta coefficient; *SE* refers to the standard error for the unstandardized beta coefficient; β refers to the standardized beta coefficient. *GDI* refers to the General Dominance Index. Tenure refers to years in the organization.

*$p < .05$

**$p < .01$

as successes, supports, constraints, and conflicts. Next, we developed and validated a measure of workplace events pertinent to nursing (the ONRP-Nursing Events Index; ONRP-NEI), and, finally, we tested the relative strength of positive and negative events with regard to nurses' burnout and engagement. We organize our discussion below around these contributions, focusing on their implications for occupational health scholarship in the nursing context.

A Typology of Positive and Negative Events

One of our main contributions in this study is the taxonomy of four broad categories of workplace events and validation of the accompanying ONRP-PEI measure. We offered several forms of empirical support for our typology and for the validity of our measure, including evidence that events can be reliably sorted into the four broad categories and have content validity. Low correlations among events and among the four event categories indicated that the events and categories are distinctive (discriminant validity), supporting the idea that in any given period of time nurses may experience one, both, or neither positive nor negative events. For example, nurses in intense and demanding work environments face an array of stressful work events may also have many highly rewarding experiences (e.g., saving lives). Others might work in less eventful jobs with fewer positive and fewer negative events.

Successes were moderately positively correlated with constraints and weakly positively correlated with conflicts. Successes may involve overcoming situational constraints or conflicts with coworkers to achieve positive patient outcomes. Alternately, successes and constraints or conflicts all may arise from a shared aspect of the situation (such as a challenging work environment). Notably, the small correlation of each event category with hours worked suggests that the correlations were not related to the overall amount of possible exposure to events at work. Interesting directions for future research include determining whether these relationships are similar across absolute (i.e., raw number) or relative (i.e., number of events in relation to hours worked) measures of event exposure and comparing the relationship of absolute and relative measures with health outcomes.

We showed that different kinds of events have distinct patterns of correlations with burnout and engagement measured eight months later, supporting external (i.e., predictive) validity for the events measure. The evidence we offered about the importance of negative events extends prior literature on nurse stressors (e.g., Edwards, Burnard, Coyle, Fothergill, & Hannigan, 2000); our main contribution is additional evidence that both constraints and conflicts as negative events increased nurses' burnout. We also extended this literature by showing that positive events increased nurses' engagement while negative events decrease engagement. The magnitude of the relationships between events and their outcomes in our study was comparable to other studies of the impact of resources and demands on similar outcomes (e.g., Hakanen, Bakker, & Schaufeli, 2006; Hakanen, Schaufeli, & Ahola, 2008). Further research on work events should include study of how event measures relate to other kinds of outcomes, such as other psychological health measures (e.g., depression, well-being), direct measures of physical health (e.g., somatic complaints, sleep quality), as well as occupational outcomes such as job satisfaction and retention or turnover.

Bad Versus Good: The Relative Effects of Positive Versus Negative Events

How positive and negative events compare in terms of their ability to predict nurses' health outcomes is a critical question, in an era of declining government investment in research and greater competition for limited research resources and participant time and effort. If negative events are more influential, nursing and occupational health interventions should focus on reducing job stressors and work hazards to maximize the yield for research investments. On the other hand, evidence supporting the benefits of positive events suggests new intervention opportunities.

The “bad is stronger than good” (BSG) proposition suggested by Baumeister et al. (2001) implies that compared to positive events, negative work events should be more strongly related to health outcomes. Consistent with BSG, we found that constraints had the strongest relationship with both burnout and engagement. Advocates of the JD-R model emphasize the effects of positive events on engagement but also acknowledge that negative events can undermine engagement effects. This fits an evolutionary perspective on organizational behavior (Baumeister et al., 2001), as well as Hobfoll's (1989) perspective on resource loss, both of whom suggest that negative events exert a stronger influence on outcomes for people than do positive events, even for positive outcomes such as engagement. Our findings emphasized the added value of positive events for explaining some occupational health-related outcomes but also reinforce the idea that promotion of nurses' occupational health needs to focus on identification and alleviation of negative events such as constraints and conflicts.

There are a few possible reasons why we found the strongest effects for constraints. Our constraints measure contained more items than the measures of successes, supports, and conflicts. As the broadest measure in terms of content, one might expect it to explain more variance in broad health outcomes. Additionally, nurses' work involves many constraints, and our findings may be specific to this occupation. The findings for constraints also might have departed from the basic prediction of the JD-R model

because of our focus on events rather than broad perceptions of resources. Because constraint events are more discrete occurrences than JD-R demands (i.e., general workplace phenomena that require sustained effort), they may have a stronger link to the motivational processes thought to affect engagement. For instance, one constraint event was, "I felt helpless in the case of a patient who failed to improve." Experiencing many such events might result in nurses distancing themselves from their work, becoming less motivating to work with and less likely to develop relationships with patients, hence becoming less engaged.

For conflicts, successes, and supports, the overall picture was less clear. Conflicts were the second strongest predictor of burnout, and relatively little variance in burnout was explained by supports and successes. Successes, however, were the second strongest predictor of engagement, with supports also accounting for reasonable amount of variance in engagement. These results suggest mixed support for the BSG proposition (Baumeister et al., 2001). Future researchers could investigate whether these effects differ across outcomes. Perhaps conflict and support events have stronger effects on outcomes specifically related to interpersonal relationships at work, such as group cohesion.

In sum, our findings suggest that for negative health outcomes such as burnout, bad (events) were clearly stronger than good (events). For positive outcomes such as engagement, both positive and negative events appear to be important, with differences in effects depending on the kinds of events. These findings, when coupled with practical advantages (e.g., low burden, simplicity) of event assessment, suggest the need for further attention to event research in nursing.

Limitations

The study variables were all measured via self-report, and common method variance bias could be a concern (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In other words, the relationships between events, burnout, and engagement may have been attributable to the fact that we gathered all of the measures through self-reported surveys. Some authors have argued that the impact of common method variance bias on findings is overstated (Spector, 2006). Additionally, self-report is a reasonable measurement strategy for individuals' experiences of events, burnout, and engagement. Moreover, some aspects of our research design (control variables; temporal separation of events and outcomes measures) help minimize method bias concerns.

Although the prospective design is a strength of this study, we are still unable to rule out some alternate explanations for the relationships among the study variables. For instance, work stress researchers typically assume that work events influence one's mental health status (Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). However, the opposite could be true: those with better mental health status (i.e., who are more engaged at work and less burnt out) could create job conditions that enable them to experience more positive and less negative events. For example, more highly engaged nurses likely maintain better interpersonal relationships with their colleagues and thus, experience more support events. Future reearchers should compare multiple causal pathways linking events to health status.

Future Directions in the Study of Workplace Events

There are a variety of other possible directions researchers could explore concerning possible differences in the effects of our event measures. First, our events measure does not capture differences in magnitude of impact of events. For example, two successes experienced at the same rate could have different impacts on nurses' engagement. Researchers could extend our work by examining different weighting schemes for the events to determine whether some events have more impact than others. Researchers also could investigate the predictive validity of more fine-grained categories of events within each of the broad categories of our typology. For example, different types of successes could predict outcomes differently.

Along these lines, researchers could potentially create an abridged events index, focusing on the most important events. We retained the longer scale as we sought a broad assessment of workplace events pertinent to a wide variety of nurses. There are a variety of approaches to shortening the list of items depending on the goals of the research, such as removing events that (1) were highly correlated with other events, (2) had less impact on health outcomes, (3) are believed to be less important to a particular subgroup of nurses (e.g., emergency departments vs. pediatrics), or (4) were less common. Few researchers have applied these methods to shortening formative measures, but an exception is a recent study by Lang et al. (2014), who described a strategy to shorten formative measures based on predictive validity and other item response qualities.

Second, researchers may want to investigate the role of individual differences in the relationship between events and their outcomes. Some individuals may be more resilient to negative events, while others may be more sensitive to, and receive more benefits from, positive events. Knowing which individual differences affect the events-outcome relationship could have implications for nurses' selection, education, and placement. There also are likely individual differences in appraisal of positive and negative events, as interpretations of events can vary depending on unique

circumstances and associated appraisals (Lazarus & Folkman, 1984). However, there is evidence affirming the approach we took of examining events that would normatively be viewed positively or negative (e.g., Diefendorff, Richard, & Yang, 2008), and research relating positive and negative daily events to emotions has affirmed that positive events uniquely predict positive affect, and negative events uniquely predict negative affect (Gable, Reis, & Elliot, 2000).

Future researchers should also consider several potential influences on nurses' experience of events. First, our focus group participants were all relatively experienced nurses. It is possible that less senior nurses might have generated additional events related to the career adjustment process. Second, our main study participants were very experienced, but aside from a very small negative correlation between tenure and successes, experience level was not related to the frequency of exposure on any of the event indices.[1] Future researchers should continue to include nurses with diverse patterns of experience. Work experience also may have moderated the relationship between event exposure and health. Less-experienced nurses might be more adversely affected by negative events because of their more limited history of coping with them. Similarly, more experienced nurses might not benefit as much from exposure to positive events because of their previous experience with similar events.

Finally, it is important to note the strengths and weaknesses of the 2×2 event framework. Its strengths are its relative simplicity and generality along with its empirical support, as it is broad enough to be applied to many different occupational settings and was designed to be easy to explain to a non-expert audience. Although simple, it captures certain kinds of events that have, in our view, received insufficient attention. For example, while a great deal of evidence supports the benefits of perceiving social support from one's coworkers (Viswesvaran, Sanchez, & Fisher, 1999), little is known about the potential benefits of experiencing successes at work.

One cost of the simplicity of the framework is a corresponding lack of diagnostic precision about specific kinds of events in each category. Thus, it may be beneficial for future research to examine event measures constructed for specific kinds of nursing jobs as well as to compare nurses to other occupations in health care settings. For example, the daily events faced by neonatal intensive care units might be quite different than those faced by nurses in ER and surgical units. We would argue that our typology provides a simple-to-use starting-point for generating occupation-specific versions of event measures in future applications.

Implications for Clinical Practice

Our findings reinforce a large literature on the importance of burnout in nurses (e.g., Kay-Eccles, 2012; Toh, Ang, & Devi, 2012; Vargas, Cañadas, Aguayo, Fernández, & de la Fuente, 2014). A comparatively smaller body of research focuses on burnout interventions, most of which has focused on helping healthcare providers cope with stressful events through programs such as mindfulness training (e.g., Bazarko, Cate, Azocar, & Kreitzer, 2013; Moody et al., 2013). Our findings about negative work events underscore the importance of addressing the causes of burnout at work through changes in job design, rather than only enhancing nurses' abilities to cope with symptoms. Based on our findings about the importance of conflicts, we echo the calls of other scholars for greater attention to interpersonal skills training on issues such as conflict resolution (Iglesias & de Bengoa Vallejo, 2012). Valentine (2001) noted that nurses may use coping styles of avoiding or compromising rather than confronting problems directly, an important issue to consider in designing such programs for nurses. Similarly, health care organizations should regularly assess the merit of certain kinds of constraint-related interventions. Not all negative aspects of nursing work can be easily addressed through job redesign, but frequent occurrences of constraint events should serve as a signal to management that job design interventions should be considered, as such interventions can benefit both employees and their organizations (LaMontagne, Keegel, Louie, Ostry, & Landsbergis, 2007).

Less research has been focused on increasing positive events at work, yielding little empirical support for recommendations, but given the importance of work engagement for nurses (Bargagliotti, 2012) and the links we demonstrated between positive events and nursing, the development of interventions promoting positive events certainly seems warranted. These could be separate interventions or modules included as part of larger interventions aimed at reducing negative workplace experiences. For example, The Civility, Respect, and Engagement in the Workforce (CREW; Osatuke, Moore, Ward, Dyrenforth, & Belton, 2009) intervention focused on increasing civility and therefore positive interactions among nurses. Increasing successes may be more challenging than removing sources of stress, as successes often are influenced by factors beyond organizational control, such as patient health status or the behavior of patients' families, but recognition programs can help nurses see the positive results of nursing work.

Conclusion

Much is known about the stressful aspects of nursing work. We developed a typology of positive and negative events

[1]In supplemental analyses we found that none of the four event measures were associated with measures of occupational tenure, years since degree, organizational tenure, or position tenure in the time-1-only sample.

and used it to determine whether the experience of positive events contributed to nurses' lesser burnout and greater engagement. While our results supported the strong influence of negative events, researchers should pay more attention to nurses' experience of the positive aspects of nursing work. Although negative events may contribute as much or more to the prediction of nurses' health, more research and better interventions are needed to highlight the importance of successes and supports in nursing.

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