The Occupational Health Nurse as the Trusted Clinician in the 21st Century

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Occupational health nurses as trusted clinicians use their direct care skills in both on-site and off-site roles to protect human resources and contain health care costs. On-site clinics leverage the knowledge, skills, and abilities of occupational health nurses. To maximize the health of the work force, occupational health nurses use strategies aimed at improving health, engaging employees, enhancing accountability of employees, linking provider strategies, using technology creatively, and promoting healthy work environments. Occupational health nurses maintain a proactive and effective impact on occupational health and safety as part of a broader framework of holistic primary care.

Occupational health nursing has its roots in the community. Early occupational health nurses were actively involved in providing home nursing services, including monitoring employees’ adherence to “doctor’s orders.” Ada Mayo Stewart, employed by the Vermont Marble Company in 1895, is recognized as the first occupational health nurse in the United States (Brown, 1988; Felton, 1985; Parker-Conrad, 2002). Stewart saw the need to educate employees about their health and “instructed in health behavior in seven languages” (Felton, 1985, p. 621). She engaged in primary care and health promotion by visiting workers and their families in their homes to provide direct care and health education and teach prevention strategies. Stewart was the “trusted clinician” and linked employees’ lives at home to their lives at work.

Fast forward to the 1971 publication of the occupational health nursing competencies document, which (because of its 36-inch length) was entitled The Yard of Occupational Health Nursing (Keller, 1971). It organized occupational health nurse competencies using Maslow’s Hierarchy of Needs (i.e., physiological, safety, social, psychological, and self-actualization) and Leavell and Clark’s Levels of Prevention (i.e., health promotion, specific protection, early diagnosis and prompt treatment, disability limitation, and rehabilitation) (Keller, 1971). Selected competencies and suggested nursing actions highlight the special relationship between the occupational health nurse and workers and their families, providing guidance for employees to recognize and meet their own health needs (Keller, 1971).

Tu, Boukus, and Cohen (2010) noted the importance of building on the trusted clinician model to achieve better health outcomes. Occupational health nurses, who traditionally focus on providing excellent care to injured workers, must broaden their perspectives to include a holistic primary care approach. On-site clinics that provide customer-centric care, defined as creating an enduring relationship and improved quality by developing a well-defined, differentiated service promise and consistent service delivery (Weiss, Tyink, & Kubiak, 2009), create an environment where the trusting partnership is nurtured. This partnership in turn activates the engagement of workers, who become participants in their care.

This article describes past and current direct care roles of occupational health nurses and the continued expansion of on-site clinics, which aim, in part, to protect human resources and contain health care costs. In addition to on-site clinics, successful employers use six core strategies to reach these two objectives: health improvement, engagement, accountability, linking provider strategies, technology, and a healthy environment (Towers Watson/National Business Group on Health, 2011). Opportunities to build on the trusted relationships that occupational health nurses have with workers and their families are presenting themselves more than ever before. The focus of the occupational health nurse is to maintain a proactive and effective impact on occupational health and safety as part of a broader framework of holistic primary care.
The shift in recent years to wellness programs, primary care services, and health coaching for lifestyle behavior change to prevent and manage chronic conditions has primarily been due to employers’ growing motivation to reduce employee and retiree health care costs. This shift provides the gateway for occupational health nurses to blend the opportunities of the current marketplace with their health care knowledge. The future of occupational health nursing lies in nurses’ ability to remain current with the marketplace’s demands and capitalize on unique relationships with both employees and employers.

DIRECT CARE ROLES OF OCCUPATIONAL HEALTH NURSES

Occupational health nurses’ role in direct clinical care is long-standing and valued by both employees and employers. Occupational health nurses have a professional legacy as licensed health care professionals to provide direct care and nurture existing relationships with employees that are anchored in trust and credibility. With knowledge of the worksite, work processes, and organizational culture, occupational health nurses leverage a proactive health and safety agenda for a safe workplace and an engaged, educated, and healthy work force. Direct care activities, crossing all levels of prevention, are delivered on-site and off-site by occupational health nurses and nurse practitioners who are hired directly by employers or through vendor arrangements.

Direct care activities have historically been the primary role of occupational health nurses. More than 30 years ago, the National Institute for Occupational Safety and Health (NIOSH) conducted a thorough analysis of the cost-benefit of on-site occupational health nurses in workplaces with fewer than 1,000 employees, predicting that occupational health nurses would “remain the predominant focus for delivery of health care in the small plant environment” (U.S. Department of Health and Human Services, 1980). NIOSH outlined additional occupational health nurse roles in health promotion and disease prevention, hazard surveillance and control, review and control of lost-time and health care costs, compliance with state and federal occupational safety and health regulations, and administration of health insurance programs, records, and reporting systems (U.S. Department of Health and Human Services, 1980).

As demonstrated in the most recent certified (n = 794) and non-certified (n = 429) occupational health nurses role validation study by the American Board for Occupational Health Nurses, Inc., direct care activities continue to be a prevalent occupational health nurse role (Strasser, Maher, Knuth, & Fabrey, 2006). Direct care activities accounted for 34% of certified occupational health nurses’ time, followed by case management (26%), manager/coordinator (22%), educator/advisor (15%), and consultant (8%). For certified occupational health nursing specialists, the manager/coordinator role accounted for 28% of their time, followed by direct care (27%), case management (23%), educator/advisor (15%), and consultant (12%). For all survey participants, the most significant work activities involved direct care, ethical decision making, and recordkeeping, including ensuring the confidentiality of personal health information, providing treatment for work-related injuries and illnesses, implementing policies and procedures for confidentiality, using and maintaining employee health recordkeeping systems, and assessing employees with work restrictions and facilitating proper accommodations (Strasser et al., 2006).

Direct care functions of occupational health nurses are valued by human resource and corporate managers. In a qualitative study of human resource professionals’ understanding of occupational health, key narratives about occupational health nurses’ direct care competencies, including managing health, communication, and return-to-work issues when an employee is receiving disability or directing resources to employees with serious health problems, emerged (Blizzard, 2006). In 1994, Nelson (2001) surveyed 44 corporate officials of one Fortune 100 company in the Midwest to explore corporate perceptions of the value of occupational health nurses’ current and future roles. Conducting periodic health assessments and supervising nursing care were recognized as current occupational health nurse tasks by 77% and 82% of the participants, respectively. Supervising the provision of nursing care for job-related emergencies and illnesses ranked highly, second only to providing worker safety, health promotion, and risk prevention education (Nelson, 2001).

ON-SITE HEALTH CENTERS

Employers have sponsored on-site health clinics for decades, driven in part by the passage of the Occupational Safety and Health Act of 1970, mandating medical surveillance and a variety of safety provisions. On-site clinics are convenient for employees needing urgent care services for both occupational and non-occupational health conditions (Burgel, 1993; Children, 1997; Russi et al., 2009). An on-site health care provider familiar with the workplace facilitates diagnosis and recovery, and often any impact of the health condition on work can be determined early (Russi et al., 2009). Employee reliance on on-site providers builds trust and enhances communication (Russi et al., 2009).

Despite contract negotiation efforts and cost-containment strategies in the 1990s and health and productivity improvements in the past decade, annual U.S. health care costs continue to increase, substantially outpacing inflation (Towers Watson/National Business Group on Health, 2011). Given the current economic climate and the uncertain financial impact of health care reform, employers continue to look for ways to reduce health
care costs and improve worker health and productivity. As such, more employers either have increased the scope of services for their existing on-site occupational health centers or are actively investing in the creation of on-site health centers focused on primary care services and health coaching. One third of all U.S. on-site health centers have been established since 2000 (Towers Watson/National Business Group on Health, 2011). Of those, the driving motivators, in order of importance, were to reduce health care costs, enhance worker productivity, improve access to care, improve integration of health and productivity efforts, improve quality of care, address occupational and safety needs, and offer concierge health services (Towers Watson/National Business Group on Health, 2011).

Evidence supports the concept that on-site clinics utilize health care resources better while providing primary care and health coaching services for behavioral change that improves chronic conditions (Chenoweth, Martin, Pankowski, & Raymond, 2005; 2008; Tao et al., 2009). Griffith and Strasser (2010) described their first year piloting an on-site clinic to provide care to 10,000 employees of a self-insured semiconductor industry. This on-site clinic was established, in part, to manage health risks identified by ongoing health risk appraisals. Two clinic sites were established to service two campuses and included occupational health services, urgent care, primary care, physical therapy, and vaccinations. Metrics included number of primary care worker encounters, number of all visit encounters, return on investment, and customer satisfaction, including convenience of seeking care on site. Based on the first year of positive outcomes, on-site clinic expansion is planned for other industry locations.

In many on-site health centers, nurse practitioners provide both primary care and occupational health services (Adams, Mackey, Lindenberg, & Baden, 1995; Chenoweth et al., 2005; 2008; Scharon, Tsai, & Bernacki, 1987; Tao et al., 2009). Additional evidence supports nurse practitioners as cost-effective care providers for workers’ compensation cases in off-site clinics. Sears, Wickizer, Franklin, Cheadle, and Berkowitz (2007a) evaluated the health care costs and disability outcomes of workers treated by nurse practitioners in the Washington State workers’ compensation system. In 2004, removal of regulatory barriers allowed nurse practitioners to sign reports of injury and prescribe temporary disability in a 3-year pilot project, an effort to provide greater and timelier access to health care in rural settings, to reduce delay in reporting injuries, and to respond to nurse practitioners’ requests to expand their scope of practice. Concern was expressed that medical and indemnity costs would rise (Sears et al., 2007a). The state of Washington is unique in that this one program provides workers’ compensation insurance to 70% of employers, excluding those employers who are self-insured or covered by federal and maritime programs. This fixed fee-for-service system reimburses nurse practitioners and physicians from the same fee schedule. Additionally, workers can choose their provider. In the first year of the pilot program, nurse practitioners submitted 7% of all claims. This study examined all claims filed by nurse practitioners and family practice, internal medicine, and primary care physicians within a 12-month period (2004 to 2005) as well as all visit data for these claims through 2006, providing 12 to 24 months of monitoring data. The researchers evaluated 29,949 claims; 6,931 of these were lost-time claims. Two hundred fifty-one nurse practitioners and 2,437 physicians were identified as first attending providers for these claims. Nurse practitioners saw significantly more women and workers who were injured in rural counties. Injury type was similar between nurse practitioners and physicians, and no significant differences in the number of workers who transferred to a different attending provider were found. Physicians had a significantly higher proportion of lost-time claims, with back sprains and strains driving this significant difference; however, mean lost days for back injuries did not vary significantly by provider type. In the regression models controlling for injury type and severity and other factors, nurse practitioners were significantly less likely to prescribe any lost time compared to physicians (adjusted odds ratio = 0.84; p = .04). Health care costs did not differ significantly by provider type, nor did lost-time duration (Sears et al., 2007a). These data demonstrate that nurse practitioners did not increase health care or indemnity workers’ compensation costs. Additional studies of this nurse practitioner pilot project confirmed that nurse practitioners provided quality and safe care to injured workers with uncomplicated back injuries, with significant cost savings compared to physician care (Sears, Wickizer, Franklin, Cheadle, & Berkowitz, 2007b), and that nurse practitioners provided more health care access for injured employees in rural areas (Sears, Wickizer, Franklin, Cheadle, & Berkowitz, 2008).

Customer satisfaction with nurse practitioner care in occupational health settings has also been studied. Guzik, Menzel, Fitzpatrick, and McNulty (2009), surveying 129 workers seen for a new injury in one off-site occupational health clinic in Florida, compared satisfaction metrics by provider type. Metrics for satisfaction included overall satisfaction with visit, time spent with provider, if the provider explained what was done, technical skills of the provider, and provider’s personal manner. All ratings of worker satisfaction were high; importantly, no significant differences between nurse practitioner care and physician care in this one off-site occupational health clinic were found. Worker satisfaction was also high in several on-site clinics managed by one large organization that provides on-site clinic services by nurses, nurse practitioners, physicians, and physical therapists for many diverse industries nationally. These data, collected from all workers seen by all clinics managed by one organization in 1 month during the third quarter of 2011 (11,428 clinician encounters and 469 physical therapy encounters), ranked over 9.73 on a 1 to 10 scale, with 10
HEALTH CARE COST CONTAINMENT: ADDITIONAL SUCCESSFUL EMPLOYER STRATEGIES

Of the top 12 tactics that successful companies implemented in 2011 to manage health care costs, occupational health nurses can participate in and influence employees’ success in six of them (Towers Watson/National Business Group on Health, 2011):

- Rewards for enrollment in healthy lifestyle activities.
- Rewards for completing requirements of a healthy lifestyle activity.
- Use of health risk appraisals and biometric screenings for employees to be eligible for other financial incentives for healthy activities.
- Providing employees with information on provider and/or hospital quality.
- Rewarding employees based on smoker or tobacco use status.
- Investing in enhancements to case management for serious conditions.

Of the top five challenges that employers report in maintaining affordable benefit coverage, employees’ poor health habits, underuse of preventive services, and limited understanding of how to use the health plan are 1, 3, and 5, respectively (Towers Watson/National Business Group on Health, 2011), each of which would benefit from occupational health nurse intervention. Finally, the Towers Watson/National Business Group on Health analysis indicated that the most successful companies focused on six core strategies to achieve cost reduction and improvements in work force health and productivity: health improvement, engagement, account-ability, linking provider strategies, technology, and a healthy environment. These core strategies match the unique skill set of occupational health nurses. The following discussion explores how occupational health nurses can drive the implementation of these strategies.

Health Improvement

Occupational health nurses have long been involved in case management, lifestyle behavior change programs (e.g., smoking cessation and weight management), and risk factor identification, whether the risk factors are due to work, personal lifestyle choices, family history, or genetics. Studies show the effectiveness of a variety of worksite health promotion interventions, many of which involve occupational health nurses (Jackson et al., 2011; Mauceri et al., 2011; Pelletier, 2009; White & Jacques, 2007). Yap, Davis, Gates, Hemmings, and Pan (2009a) studied tailored e-mail messages sent weekly by occupational health nurses for 6 weeks to encourage physical activity among manufacturing employees who were contemplating or preparing for behavior change. Using a quasi-experimental design in two manufacturing locations in the same state, Yap et al. (2009a) measured the stages of behavior change and the number of steps, as measured by an accelerometer, in both the experimental (n = 37) and the comparison (n = 36) groups. In the group receiving tailored e-mail messages, of those who were contemplating behavior change (n = 15), a significant shift to the action stage occurred among 7 workers. This finding was in contrast to the comparison group: of the 10 workers contemplating behavior change, no workers moved forward to the action stage (Yap et al., 2009a). This difference, although in a small sample, was significant. Additionally, at the final measurement period, the experimental group walked an average of 300 steps more per day than the comparison group (Yap, Davis, Gates, Hemmings, & Pan, 2009b).

Small and medium-sized employers were assessed in 2005 and 2006 by an expert panel of the Centers for Disease Control and Prevention (CDC) to identify best practices in worksite weight management programs using the CDC Swift Worksite Assessment and Translation (SWAT) method (Hersey et al., 2008). For individual employee behavior change focused on weight management, five strategies were identified: periodic health assessments tied to personalized feedback and motivational interviewing; monthly site walk-throughs by an occupational health nurse (supplied by a vendor) during which time the occupational health nurse visits with all employees and is available to discuss health concerns; peer coaching; strong linkage of the wellness program to worker safety, including group stretching to promote the model of an “industrial athlete”; and health coaches who travel among a company’s worksites to meet with employees (Hersey et al., 2008).

Engagement

Successful companies that create strategies to build a healthier work force effectively use monetary incentives to encourage employees and their dependents to participate in health risk appraisals and biometric screenings, smoking cessation, and health coaching (Towers Watson/National Business Group on Health, 2011). Health coaching is fundamental to this strategy. Expanding the role of the occupational health nurse into health coaching is a logical step, but one that must be addressed using verified behavior change strategies demonstrated to be effective (Huffman, 2010; Miller, 2011). “Motivational interviewing is the only health coaching approach to be fully described and consistently demonstrated as causally and independently associated with positive behavior outcomes” (Health Sciences Institute, 2011, p. 8). Thus, occupational health nurses should seek training in motivational interviewing to contribute to effective employee engagement.

Occupational health nurses can use their health coaching roles to enhance worker behavior compliance with occupational needs as well.
Kerr, Lusk, and Ronis (2002), in a cross-sectional study of 119 Mexican American women working at three garment manufacturing sites, explored factors associated with the use of hearing protection devices, based on the Health Belief Model. Providing a clinical definition of health, perceiving benefits of hearing protection devices, perceiving fewer barriers to use, and having confidence in using hearing protection devices were factors associated with the use of hearing protection devices at work (Kerr et al., 2002). Additionally, the authors noted that consistent use may be “boosted through interpersonal influences such as role models, social norms at work and interpersonal support such as encouraging use. Those with lower educational levels may especially benefit by increased confidence in using hearing protection . . .” (Kerr et al., 2002, p. 107). Occupational health nurses can develop tailored interventions to increase consistent use of personal protective equipment.

Occupational health nurses often use multiple methods to engage employees. One creative method is to target work apprentices during their training, and to integrate a health promotion message with a worksite exposure message. Okechukwu, Krieger, Sorensen, Li, and Barbeau (2009) conducted a smoking cessation intervention that integrated occupational health concerns with a group of unionized building trades workers (n = 1,213) at 10 sites (four intervention sites and six control sites). Using a randomized, controlled trial design, this study was conducted at apprentice halls. The intervention was delivered during a 4-month period and included five key components: two 1-hour classes with a video educating on the synergistic effects of smoking and job exposures; behavior counseling during 1-hour group sessions conducted weekly for 8 weeks on smoking cessation strategies; free nicotine replacement therapy made available to the intervention sites; a “do it yourself” quit kit; and environmental cues (i.e., posters, handouts) in the apprentice halls. A raffle was held for those who attended at least seven of the eight weekly group sessions, and participants received gift cards on survey completion. Monitoring of smoking status was completed 1 month and 6 to 9 months after the intervention. Smoking prevalence was high at baseline (41%). At 1 month, the quit rate was significantly higher in the intervention group (26% vs. 16.8%; \( p = .014 \)), although this difference was not sustained at 6 months (Okechukwu et al., 2009). The authors discuss challenges of sustaining smoking cessation with apprentices and workers who can easily smoke outside at construction sites. This study provides many creative interventions to engage new workers during their apprenticeship with a smoking cessation health improvement message linked to on-the-job respiratory hazards.

**Accountability**

Companies use a variety of methods to promote employees’ accountability for their health care, including a high-deductible health plan. With either a health savings account or a health reimbursement account, employees have greater control of their health care expenditures. It is also expected that employees will know how to wisely use their funds. Employers hope to achieve “health care cost reductions through more efficient use of health care resources” (Sherman & Click, 2007, p. 211). Occupational health nurses provide health education and preventive services, information about treatment options, guidance with support tools available through their employers, disease management services, and referral to appropriate health care providers, all to assist employees with health care decisions.

**Healthy People 2020** topic areas include “Health Communication and Health Information Technology,” aimed at improving population health outcomes and health care quality and achieving health equity (U.S. Department of Health and Human Services, n.d.). One Healthy People 2020 objective focuses on health communication to “increase the proportion of persons who report that their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition” (U.S. Department of Health and Human Services, n.d.). An additional goal targeting state health departments but applicable to the worksite is to “increase the proportion of state health departments that report using social marketing in health promotion and disease prevention programs” (U.S. Department of Health and Human Services, n.d.).

Accountability is also expected by both employers and their insurers through the use of evidence-based guidelines. Occupational health nurses and clinicians in on-site clinics who embrace the use of evidence-based practice can expect to see improvement in worker compliance and thus improvement in overall health. In one on-site clinic where evidence-based compliance for workers with diabetes was measured annually, demonstrable consistent improvement was measured for every rule:

* Evidence-Based Medicine (EBM) Rule: “Patient(s) had at least two hemoglobin A1C tests in last 12 reported months.” Compliance increased from 53% to 72%.
* EBM Rule: “Patient(s) with diabetes and coronary artery disease are currently taking a statin.” Compliance increased from 60% to 100%.
* EBM Rule: “Patient(s) taking a statin had a serum ALT or AST testing in the last 12 reported months.” Compliance increased from 66% to 90% (Data Analytics Department, CHS Health Services, unpublished data, 2009).

Occupational health nurses can access several sources for evidence-based data, including the Agency for Healthcare Research and Quality, the CDC, and the National Committee for Quality Assurance. In addition, occupational health nurses should be well versed in the AAOHN (2012) standards of care.

**Linking Provider Strategies**

Employers increasingly use vendor summits, bringing together all players involved in the employer’s health and wellness strategy. Goals are to increase awareness and optimize the
use of existing programs and services, and maximize inter-vendor referrals among participating vendors, to link their health and productivity programs and improve services. Employers may also focus on provider quality by engaging high-performance networks and centers of excellence (Towers Watson/National Business Group on Health, 2011). Although occupational health nurses have traditionally integrated their practices with employers’ workers’ compensation carriers and case management services, the opportunity exists for occupational health nurses to additionally engage with the disease management, the employee assistance program, the wellness, or the pharmacy benefit vendor in coordinating employees’ care.

Technology
Access to data is one of the driving forces employers can use to improve worker health and productivity. More detailed claims analyses have identified and trended specific needs for particular employee populations. Company-sponsored wellness websites that provide information on the health topic of the month and access to the company’s health partners, as well as secure portals for personal health records, are increasingly common (Towers Watson/National Business Group on Health, 2011). The use of electronic medical records by on-site clinics enhances the availability of de-identified aggregate data for both the on-site provider and the employer. Occupational health nurses use electronic data for health surveillance. Using data to track compliance to accepted health care standards is the next step. The challenge is to use these data strategically to improve not only the health status of the employee but also the worksite environment.

Sternfeld et al. (2009) reported on their 4-month physical activity and diet worksite wellness study targeting administrative employees (n = 787) of a large health care maintenance organization. This nutritionist-led, randomized clinical trial included tailored e-mails to participants, focusing on goal setting to achieve small behavior changes. A personalized webpage included tips on increasing moderate and vigorous physical activity and strategies for consuming more fruits and vegetables. Intervention group participants demonstrated significant increases in self-reported minutes of walking and moderate and vigorous physical activity compared to the control group; self-reported significant gains in fruit and vegetable consumption; and decreases in sugar consumption. This study demonstrates one way to use technology to promote healthy lifestyles using the worksite as the point of interface.

Although social media are increasingly being used as a powerful addition in health communication, more research is required “to articulate the impact of social media on issue-awareness, behavioral change and improved health outcomes” (Schein, Wilson, & Keehan, 2011, p. 25). Occupational health nurses who remain abreast of these developments can harness this technology to improve their influence in health education and health coaching.

Healthy Environment
Providing a safe and healthy workplace is a legal requirement for employers. Embracing an organizational culture of health is critically important when delivering any message focused on individual behavior change. Healthy People 2020 Occupational Safety and Health goals for the nation emphasize the need to reduce work-related injuries, fatalities, assaults and homicides, repetitive motion injuries, lung disease, skin conditions, elevated blood lead levels, and noise-induced hearing loss and prevent or reduce employee stress (U.S. Department of Health and Human Services, n.d.). Employers successful at managing their health-related costs used environmental audits to ensure health messages aligned with workplace health and safety initiatives (Towers Watson/National Business Group on Health, 2011).

Healthy work environments also should address how work is organized, including how jobs are designed and performed, and the organizational systems that influence these jobs (U.S. Department of Health and Human Services, 2002). Interpersonal communication, justice and respect, fairness, job demands and decision latitude, work intensification, and effort-reward imbalance are psychosocial work constructs that influence the health and safety of workers. Burge, White, Gillen, and Krause (2010), for example, in the secondary data analysis of unionized, primarily Latino, hotel room cleaners, found that cleaners with severe shoulder pain were three times as likely to report effort-reward imbalance, after controlling for selected sociodemographic and biomechanical work factors. The occupational health nurse can influence these work organization factors if a commitment to a healthy work environment exists. The occupational health nurse can begin by exploring work practices most associated with negative health and safety outcomes for employees, with the goal to target organization-level interventions (McKenzie & Salazar, 2005).

An organizational culture of health can ensure the adoption of healthier lifestyles by employees (Towers Watson/National Business Group on Health, 2011). For weight management best practices at small and medium-sized worksites, the CDC recommended forming a wellness committee to establish a culture of wellness, including healthy food in the selection criteria for cafeteria vendors, providing free access to on-site physical activity centers, and offering bicycles for transport between buildings (Hersey et al., 2008). One employer, committed to supporting a healthier environment, provided healthy food options in the cafeteria, and influenced choices by reducing the costs of healthy options compared to “less healthy” options; placing fat, carbohydrate, and sugar content information cards in front of all food items; placing the healthy foods in easy reach; placing the healthy foods in easy reach; and pricing water less expensively than soda in the vending machines. Other ways to create a healthier work environment include constructing walking paths, providing healthy food options in vending machines (Gates,
Brehm, Hutton, Singler, & Poeppelman, 2006, and placing treadmills in break rooms.

Low, Gramlich, and Engram (2007) explored the impact of a self-paced exercise program for office workers on health outcomes (i.e., blood pressure, weight, pulse rate, and body fat percentage) and productivity. The study used a pretest/posttest, quasi-experimental design, with 32 participants (55%) completing the 3-month program. Interventions included monthly seminars on related health topics (i.e., walking, blood pressure control, and nutrition), a pedometer, incentives, and a choice of three goals: weight loss, a decrease in body fat percentage, or lowering of blood pressure. To meet these targets, participants set weekly walking goals. Productivity was measured using the 25-item Endicott Work Productivity Scale, a self-report to measure behaviors, feelings, and attitudes related to absenteeism, quality of work, work capacity, and personal factors. No significant association was found between mean number of steps walked and improved productivity at work; participants cited external organizational factors (e.g., increased workload and an impersonal work environment) as possibly contributing to these findings. Individuals did, however, record weight loss and limited blood pressure improvements. Of importance is that 82% of the participants met their weight and blood pressure goals, albeit small steps; 66% of the group lost a total of 290.5 pounds. The authors do not report whether the participants met their weekly walking goals, an additional metric of interest. This study highlighted the importance of upstream interventions, including healthy work environments, not only individual behavior. Exploration into the organization of work and how this can influence individual health choices is a significant area for further study.

OPPORTUNITIES FOR OCCUPATIONAL HEALTH NURSES

Occupational health nurses are perfectly positioned to influence health at the interface between employees and their work; occupational health nurses are encouraged to market themselves as professionals who can create meaningful interactions to facilitate individual behavioral change. When this interface occurs at the workplace and trusted relationships develop, additional opportunities to promote a safe and healthy workplace with an organizational commitment to health can develop. On-site clinics are one way to develop and promote a trusted clinician model, which can integrate the six strategies (i.e., health improvement, engagement, accountability, linking provider strategies, technology, and a healthy environment) aimed at improving the health of the work force while controlling health care costs.

These trusted partnerships between occupational health nurses and employees require a professional, ethical practice base. Nurses continue to rank highest in honesty and ethics in Gallup polls (Jones, 2010). A proactive, well-managed occupational safety and health program requires organizational commitment to and value of a healthy workplace. A major ethical precept is that occupational health nurses cannot develop trusting partnerships with employees if workplace hazards are not mitigated. Occupational health histories are key to the accurate diagnosis of work-related health conditions (Taiwo, Mobo, & Cantley, 2010). Without recognition of work-related conditions, mitigation of hazards cannot be achieved. If a delay in diagnosis or corrective action occurs, ill workers may continue to be exposed, and coworkers could be similarly exposed.

A competent, self-aware occupational health nurse is central to a proactive occupational safety and health program. The occupational health nurse must have the knowledge, skills, and abilities to promote a healthy and safe workplace and to creatively work with individuals at their level of readiness. To meet the needs of the future and respond to marketplace demands, occupational health nurses must continue to develop and value their direct care skills; effectively measure the outcomes of their care at individual and organizational levels; and continue to apply evidence-based and best practices to engage employees in behavior change strategies. Occupational health nurses can foster an understanding of how health impacts productivity at work, how the organization of work influences health, and how employees’ personal health behaviors contribute to rising health care costs. In honor of Ada Mayo Stewart, and the yards and yards of occupational health nursing contributions during the past 70 years, the opportunity is now to prepare strategically for the 70 years that lie ahead.

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