

## NIOSH OHP Activities

### Training Products for Workers on Shift Work and Long Work Hours

Claire C. Caruso

National Institute for Occupational Safety and Health

The National Institute for Occupational Safety and Health (NIOSH) has several projects targeting risks associated with sleepiness and insufficient sleep. In the May, 2008 *Newsletter*, Edward Hitchcock (<http://sohp-online.org/SOHPNewsletterV3May2008.pdf>) described activities in the Transportation, Warehousing, and Utilities Sector addressing the problem of fatigue in truck drivers. The current article will describe another fatigue-related project, the purpose of which is to develop a training program that informs workers and managers of the risks associated with shift work and long work hours. A second aim of the project is to introduce strategies to reduce these risks.

About 15% of U.S. full-time workers are on shift-work schedules (McMenamin, 2008) and an estimated 20% work long hours (Jacobs & Gerson, 2004). Shift work and long work hours are linked to a growing number of health and safety problems including injuries, worker errors, cardiovas-

cular and gastrointestinal disorders, mental disturbances, and adverse reproductive outcomes (Arnedt et al., 2005; Barger et al., 2005; Boggild & Knutsson, 1999; Caruso et al., 2004; Dembe et al., 2005; Folkard & Lombardi, 2006; Frazier & Grainger, 2003; Hanna et al., 2005; Knutsson, 2003; Landrigan et al., 2004; Mozurkewich et al., 2000; Rogers et al., 2004; Rohr et al., 2003; Sood, 2003; Thomas & Raynar, 1997; Tuntiseranee et al., 1998). In 2007, the International Agency for Research on Cancer of the World Health Organization announced that shift work coupled with circadian disruption is a probable carcinogen. A recent review of the literature reports that long work hours are associated with musculoskeletal disorders, which are possibly due to increased physical demands (Caruso & Waters, in press). Fatigue-related worker mistakes and errors can also affect families and communities through work/family conflict, vehicular crashes, patient care errors, and industrial disasters. The scientific community has generated knowledge about these risks and strategies to reduce them, but this information has not been sufficiently disseminated to U.S. workers and their managers. ... (Continued on page 17)



Claire Caruso  
NIOSH



## NIOSH OHP Activities (cont'd)

(Continued from page 16) ... To fill this need, NIOSH is developing work schedule risk prevention training products to educate four audiences in this regard - miners, nurses, retail workers, and truck drivers.

This project meets a NIOSH goal of bringing research to practice (r2p) to enable workers and organizations to benefit more quickly from scientific findings. The project will advance NIOSH r2p goals by disseminating to high-risk groups in an assessable and cost-effective way the latest scientific evidence linking work schedules and associated health risks. The *NIH Sleep Disorders Research Plan* (2003; <http://www.nhlbi.nih.gov/health/prof/sleep/reschplan.htm>), the Institute of Medicine Report - *Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem* (2006; <http://www.iom.edu/CMS/3740/23160/33668.aspx>), and the NORA Long Work Hour Team publication (2006; see <http://www.cdc.gov/niosh/topics/workschedules/> for a series of relevant publications) recommend the development and testing of this type of training.

To develop the training products, external scientists and focus groups for each of the targeted audiences will provide input to improve the chances that the training materials will be practical and effective. The training content will include information about the need for sleep and dangers of sleepiness and fatigue, deficits in functioning associated with

sleep deprivation, other health risks, difficult work scheduling patterns, countermeasures, and shared responsibility in the workplace for reducing risks. After the training products are drafted, focus groups of managers and workers in the targeted audiences will give feedback and the project staff will make refinements to the training based on the feedback. A small-scale pre- and post-test evaluation will assess the impact of the training on knowledge, attitudes, and intended health behaviors in a group of nursing students and improvements will be made based on the results.

The goals of the training are to improve knowledge, attitudes, and intended behaviors related to risks associated with demanding work schedules. As a result, students, workers, and managers will be better prepared for these occupational hazards and will be more knowledgeable about countermeasures that reduce health risks. The longer-term goals of the training are to reduce injuries and illnesses. In addition, these improvements should reduce fatigue-related worker mistakes and errors that can result in far-reaching adverse effects on families and communities.

Final training products will be made available through CDC publications and the NIOSH web site ([www.cdc.gov/niosh](http://www.cdc.gov/niosh)). NIOSH personnel on this project include Claire C. Caruso, Edward Hitchcock, Akinori Nakata, Stephen Hudock, Robert Peters, Donald Eggerth, and Brenda Jones.

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Fatigue-related worker mistakes and errors can also affect families and communities through work/family conflict, vehicular crashes, patient care errors, and industrial disasters.



# Welcome to the Society for Occupational Health Psychology Newsletter!



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Editor's Welcome



Irvin Sam Schonfeld, Editor

The City College of the City University  
of New York

[ischonfeld@ccny.cuny.edu](mailto:ischonfeld@ccny.cuny.edu)

## Note from the Editor

This, the fifth issue of the *Newsletter of the Society for Occupational Health Psychology*, covers a diverse set of topics. The series devoted to graduate programs in occupational health psychology continues with an article by Rachel Daniels and Kristi Zimmerman on the program at Portland State University. Previous issues of the newsletter described OHP programs at the University of South Florida (<http://sohp.psy.uconn.edu/SOHPNewsletterV3May2008.pdf>) and Colorado State University (<http://sohp.psy.uconn.edu/SOHPNewsletterV4October2008.pdf>). Eventually, I would like to see feature articles on every OHP program in North America and elsewhere in the world.

Our *Across-the-Pond* feature begun in the last issue continues with Peter Kelly and Jonathan Houdmont's report on the Professional Practice Forum at the EA-OHP's November conference in Valencia, Spain. It is clear from the article that professional practice is an important part of OHP. SOHP President-Elect Janet

Barnes-Farrell reports on a meeting that took place at the conference that paves the way for greater international cooperation in OHP. And we include in this issue an announcement of the upcoming "Work, Stress & Health 2009 Conference" in San Juan, Puerto Rico, in November 2009.

Beginning with our first issue, I commissioned a series of articles about OHP-related activities at the National Institute for Occupational Safety and Health. In this issue, Claire Caruso continues the series with an article on NIOSH's efforts to prevent health- and safety-related problems associated with shift work and long work hours. In volume 1 of our newsletter, Jeannie Nigam wrote about NIOSH's research on work organization and the prevention of stress-related disorders within the framework of the National Occupational Research Agenda. And in volume 3, Ed Hitchcock wrote about NIOSH's efforts to improve health and safety in the trucking industry (<http://sohp.psy.uconn.edu/SOHPNewsletterV3May2008.pdf>).

This issue has a pair of articles on a topic suggested by SOHP president Bob Sinclair, namely on resources that could be useful to our readers. Initially I planned one such article, but I liked the idea so much that when the opportunity arose I decided to publish two articles. Paul Landsbergis describes two resources that could help our readers implement intervention studies. And Nathan Bowling covers a technique for assessing emotional expression that can be adapted for OHP research. Many of our readers may not be aware of this technique. I know I was unaware of it until Nathan brought it to my attention.

Bob Sinclair also organized a piece on the future of occupational health psychology. He developed eight key questions that bear on OHP's future, and posed them to five leading contributors to OHP. The first four questions and the responses to them are presented in this issue. The remaining questions and answers will appear in the next issue.

With the current economic downturn on everyone's mind, I commissioned an article concerning its impact. Tahira Probst and Lindsay Sears write about the consequences of economic stress on individuals' sense of well-being and on the functioning of the workplace. Tahira and Lindsay present a number of constructive suggestions for adjusting to economic stressors, suggestions that are applicable to individuals and organizations.

Our two final articles keep our readers up-to-date about SOHP business. Chris Cunningham covers the last meeting of the SOHP's Executive Committee, and apprises us about the Society's budget and growing visibility in professional circles. Mo Wang covers the membership committee, and a new benefit it offers. Judging from these two articles, one can see that the Society is steadily advancing on a number of fronts including visibility, membership, and member benefits. A new member benefit not mentioned above is that the newsletter will now include announcements of books written or edited by members of the Society. Our first member book announcement is in this issue. I encourage readers who are not yet members to join.

And don't forget our survey. Maria Karanika-Murray, Leigh Schmitt, and I have written a brief note asking readers to complete a survey of the publication outlets they use in OHP. Readers will find a link to the survey in this issue. We will publish the results in future SOHP and EA-OHP newsletters.

(Continued on page 2)

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