

**Expanding Training in Psychosocial
Factors at the Workplace to Lower
Income Countries:
The UCLA-Fogarty Program**

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Abstract

Much of the work linking psychosocial stress in the workplace with adverse health outcomes has been conducted in highly industrialized countries, yet urbanization and industrialization is proceeding rapidly in many developing nations. There is a need to expand psychosocial stress research and training to include these countries.

The UCLA Center for Occupational and Environmental Health (COEH) offers a model for bridging this gap. The UCLA COEH, partly through APA/NIOSH support, is developing a training program in Psychosocial Stressors in the Workplace (PSW) for graduate students at UCLA. The UCLA COEH also has NIH funding for its UCLA-Fogarty Program, an environmental and occupational health training program in Mexico.

The programs have combined interests to provide support for PSW training in Mexico through two initial approaches: 1) offering a binational workshop in Mexico on conducting workplace surveillance with a focus on psychosocial factors and health outcomes, and 2) training graduate students enrolled at Mexican institutions who will do their thesis research on PSW.

This collaboration provides one model for expanding globally the study of health outcomes of psychosocial factors in the workplace. Consideration should be given to implementing similar training efforts in other lower income countries.

What is the Problem?

- **There is increasing evidence that the work environment and the organization of work contributes to deleterious health outcomes.¹**
- **These health outcomes include musculoskeletal disorders, accidents and injuries, cardiovascular disease, psychological and behavioral disorders and possibly reproductive effects and immune system suppression.**
- **Recent trends indicate that work organization and related psychosocial factors, such as job strain, effort-reward imbalance and occupational stress, may be increasing the risk of occupational illnesses and injuries.²**
- **The relevant literature has focused on industrialized countries; little documented information is available from lower income nations.**

¹NIOSH (2002) *The Changing Organization of Work and the Safety and Health of Working People*. Cincinnati: NIOSH; Report no. 2002.

²Landsbergis, PA (2003) The changing organization of work and the safety and health of working people: a commentary. *J Occ Envtl Med*, **45**(1):61-72.

The Tokyo Declaration

- **A major meeting on work-related stress and health was held in Tokyo in 1998 to discuss foreseeable trends and future research, training and information needs.³ The Tokyo Declaration issued from this meeting makes specific proposals to policy-makers to improve workplace health, including:**
 - **Implementation of available information to prevent and reduce workplace stress**
 - **Research to address knowledge gaps**
 - **Surveillance at individual work sites and regional and national monitoring**
 - **Training of occupational professionals participating in research and program design**
- **While the participants acknowledged the health burden in less industrialized countries and the need to address those issues, the focus of the meeting was on the postindustrial societies of the European Union, Japan and the United States.**

³May be viewed at www.workhealth.org/news/tokyo.html, the website for the Center for Social Epidemiology.

Impact of Globalization

- **With globalization, changes in work and the work environment are increasingly common in industrializing nations. Typically the jobs exported to these countries are factory jobs usually characterized by high demands and low control (i.e., job strain).**
- **In Mexico hundreds of *maquiladoras*—assembly plants established primarily along the border with the US by manufacturers from postindustrial societies—have had a significant impact on the labor market in Mexico. The positive aspects of foreign investment and local employment may be countered by adverse working conditions, such as few rest periods, excessive noise levels, high quotas and low decision autonomy, leading to stressful working conditions.⁴**
- **Many Hong Kong apparel manufacturers have moved plants to a bordering low income province of China (Guangdong), where workers are often paid by piece-rate, given below minimum wage compensation, forced to work overtime and charged through payroll deductions for food and lodging.⁵**

⁴Guendelman, S and Jasis Silberg, M (1993) The health consequences of maquiladora work: women on the US-Mexico border. *Am J Pub Health*, 83(1):37-44.

⁵See <http://www.maquilasolidarity.org/resources/maquilas/china.htm>.

Why Study Less Industrialized Countries?

- **Globalization may export work practices not common nor developed in target countries possibly resulting in unexpected outcomes.**
- **High rural to urban migration of populations in search of jobs may alter health outcomes for better or for worse.**
- **The transition from agrarian to industrial economies provides unique opportunities for studying relative work stress and health status, as opposed to the research in highly industrialized nations where pre-industrial conditions are assumed or indirectly inferred.**
- **Cultural differences may influence the relationship between psychosocial stress in the workplace and health outcomes.**

Mexico: A Good Starting Point

- **The process of globalization has brought foreign assembly plants (*maquiladoras*) to Mexico and stimulated rapid industrialization.**
- **Large population shifts to the border with the US, where most maquilas are located, and to urban areas such as Mexico City may impact exposure to work-related stress and subsequent health outcomes.**
- **Most migrants are moving from small rural communities to large urban areas.**
- **Mexico already has a cadre of researchers exploring questions of stress in the workplace and mental health outcomes, such as depression, anxiety and burnout.^{4,6}**

⁶Aldrete Rodriguez MG, Pando Moreno M, Robles Valadez EG and Robles Martinez NP (2001) Burnout syndrome in school teachers from the Guadalajara metropolitan area [Spanish]. *Salud y Trabajo* 2(5):10-17.

Bridging the Gap—The UCLA COEH

- **The Centers for Occupational and Environmental Health (COEH) were established within the University of California by the state legislature in the late 1970s. Since then the three COEHs have been at the forefront of research and training in occupational safety and health within the state.**
- **To address the emerging issues surrounding work stress and adverse health outcomes, two years ago the UCLA COEH, jointly with the UCI (Irvine campus) COEH, initiated a new occupational health training program, called Psychosocial Stressors in the Workplace (PSW).**
- **The UCLA COEH also houses the UCLA-Mexico Training and Research Program in Environmental and Occupational Health (UCLA-Fogarty Program).**
- **The two UCLA COEH programs can work together to advance psychosocial stress research in Mexico.**

PSW Program

- **The UCLA and UCI COEHs have developed a joint initiative to enhance research, teaching and workplace-based services dealing with psychosocial factors in the workplace. This effort will also draw on the resources of the Southern California NIOSH Education and Research Center (housed within the same department as the UCLA COEH) to accomplish these goals:**
 - **Training: two courses have been developed and offered**
 - **Occupational Health Psychology: Work Organization and Health, a graduate public health course at UCLA with initial funding from APA/NIOSH**
 - **Work Environment and Cardiovascular Disease in Clinical Practice, a clinical course for professional health care providers.**
 - **Surveillance: a comprehensive plan to detect psychosocial exposures and incipient illness in cooperation with interested industries, health care providers, public agencies and labor unions.**
 - **Research: to evaluate data generated through surveillance activities and document results.**
 - **Primary prevention: designing appropriate interventions to change work organization and/or job characteristics to reduce negative psychosocial factors.**

UCLA-Fogarty Program

- **In 1995 the UCLA COEH (through the UCLA Department of Environmental Health Sciences) was awarded a grant from the Fogarty International Center (FIC) of the National Institutes of Health to develop occupational and environmental health training and research in Mexico, called the UCLA-Fogarty Program.**
- **Funding for the overall FIC program is provided by NIOSH, the National Institute of Environmental Health Sciences and the Agency for Toxic Substances Disease Registry.**
- **The UCLA-Fogarty Program emphasizes graduate training through collaborative research between UCLA and Mexican scientists, although other training models have also been supported as needed (e.g., short courses, workshops, publishing training materials in Spanish, etc.)**
- **Approved students are typically enrolled in Mexican advanced degree programs and come to UCLA for three to six months to take courses, learn specific laboratory methods under a faculty advisor and prepare manuscripts using UCLA's extensive library resources.**

Linking PSW with UCLA-Fogarty

- **In December 2002 an important meeting was held in Mexico City where more than 20 psychosocial and occupational health researchers from throughout Mexico met together formally for the first time to network, exchange ideas and discuss research and training needs in this growing field. The meeting was organized by the Office of Environmental Health under the Ministry of Health (DGSA), the Mexican Institute for Social Security (IMSS) and the UCLA-Fogarty Program, which also funded the meeting. Dr. Peter Schnall, lead faculty for the PSW Program, also attended the meeting and presented his work along with training opportunities at UCLA in PSW research through UCLA-Fogarty Program support.**
- **Research needs included, among others, identifying the prevalence of psychosocial factors and hypertension in the workplace, designing epidemiologic studies for other endpoints and studying appropriate interventions in specific populations.**
- **Some training needs identified were a Mexico/US short course on psychosocial factors for occupational health graduate students and program directors, short courses on research methods and a continuing education course in occupational medicine with PSW themes.**

Initial Activities

- **Several productive outcomes ensued from this meeting. Faculty studying workplace stress from the National Autonomous University of Mexico (UNAM) in Mexico City will coordinate publication of proceedings from the December meeting as a baseline of PSW activity in Mexico with recommendations for future research and training.**
- **Two students have indicated they will be submitting training proposals to the UCLA-Fogarty Program.**
- **There is initial joint agreement to hold a binational short course on conducting surveillance.**

Future Prospects

- **Strengthen collaboration between Mexican and US researchers, leading to more standardized measurement methods and better interpretation of comparative data.**
- **Increased training and research in work stress and health issues, resulting in advancing the field.**
- **Creation of a central website clearinghouse for Mexico with easy access to: researcher contact information, research results, questionnaire packets, calendar of events, bibliography, etc.**
- **With the involvement of high level national agencies such as DGSA and IMSS, the opportunity to shape public policy in Mexico to improve worker health.**

Unique Research Questions

- **Are exposures and outcomes similar within similar occupations and social classes between Mexico and the US?**
- **Are exposures and outcomes similar between workers in Mexico and Mexican workers in the US in the same occupations?**
- **Do illnesses show the same relationship to exposures, e.g., does job strain predict blood pressure in Mexican workers as in the US?**
- **Do cultural differences mediate relationship between PSW exposure and health outcomes in unique ways?**

Summary

By combining its resources, the UCLA COEH is able to actively support and strengthen psychosocial stress related training and research in Mexico, thereby moving the field to include an industrializing nation. Expanding to less industrialized countries provides unique opportunities, because of cultural and societal differences, to better understand the nature of stress in the workplace and its relationship to adverse physical and mental health outcomes.

The collaboration between PSW Program researchers at UCLA and UCI with psychosocial researchers in Mexico, through UCLA-Fogarty Program support, models one way of globally expanding this growing area of study. It is suggested that other academic institutions in postindustrial countries with occupational health or psychosocial stress related study programs consider partnering with international studies programs within their institutions to broaden the field.