Welcome to the Society for Occupational Health Psychology Newsletter!



Volume 9, October 2010 Editor's Farewell



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Society for Occupational Health Psychology

A Farewell from the Editor

I welcome readers to the ninth issue of the *Newsletter of the Society for Occupational Health Psychology* and bid our readers farewell. I am stepping down as editor. People who resign from a position often tell their audiences that they are resigning to spend more time with their families or that they are pursuing other projects. I spend plenty of time with my family. It is another project that calls me. I have neglected a manuscript I am writing about what it was like to grow up in a New York City housing project in an underdeveloped (from a real estate perspective) section of Brooklyn. One should not be fooled by contemporary stereotypes regarding public housing. I had an unusual, and unusually happy, urban childhood because of the times in which I grew up and the area in which I lived. I want to preserve the memories.

Everyone's dad was a World War II veteran, and the kids helped themselves to their dads' war loot (bayonet knives, rising sun flags, worthless paper money from occupied France). There were small farms run by Italian-American families—we

swiped peaches from their peach trees —, kid-run football and baseball games in the surrounding meadows, fresh-water swamps with snakes and frogs that my best friend and I caught with our bare hands and brought home as pets, all within the legal boundaries of New York City. There was even a comic book factory in the neighborhood, something kids from the Glenwood Houses considered a cultural advantage (it was actually the warehouse for *Classics Illustrated*, enabling most of the kids in my neighborhood to read, in addition to the usual *Superman* and *Batman*, a large chunk of world literature in comic book form, causing at least one English teacher to explode in anger when he learned of our secret). Of course, the landmarks of my boyhood have long since disappeared. I want to ensure that those memories and the memories of my contemporaries get down on paper. I want to stop procrastinating and return to the manuscript.

Now that I've told you why I am resigning as editor, I turn to the contents of this issue of the *Newsletter*. Our coverage of OHP graduate programs continues. Amy Conner and Rick Best report on the OHP program at Kansas State University. Guillermo Wated reports news from the Education and Training Committee. Taylor Moore reports news from the Graduate Student Issues Committee.

This issue continues our Research Resources series, this time with two articles, one by Chris Cunningham and the other by Nathan Bowling. Because Chris delivered a talk at the November 2009 Work, Stress, and Health Conference that I thought would be helpful to researchers, I asked him to write an article for this issue. His Research Resources article concerns multiple mediation. Nathan, who has an abiding interest in the role of measurement in OHP and has written previously for the *Newsletter* about using facial expressions to measure employee emotions (http://sohp.psy.uconn.edu/SOHPNewsletterV5January2009.pdf), has written another measurement piece. This time he writes more generally about implicit measures in OHP.

I met Jacalyn Dougherty, a professor of nursing at Northern Colorado University, at the last WSH conference. Jacalyn expressed an interest in writing about the experience of attending the conference from two perspectives: it was her first time at the conference and she came from a discipline outside of psychology. The article will be of interest to readers who are thinking about attending future Work, Stress, and Health conferences ... (continued on page 2) ...

Guidelines Regarding the Submission of Articles

If you would like to submit an article to the *Newsletter of the Society for Occupational Health Psychology*, please consider these guidelines. We welcome variety in the articles we publish. Articles you submit can bear on practice, research, policy, or teaching. If you are a newcomer to the field of occupational health psychology, a student, or a veteran researcher or practitioner, we encourage you to submit an article. Our aim is to publish two newsletters per year.

Please email your proposals and submissions to: The Editor, Irvin Sam Schonfeld, ischonfeld@ccny.cuny.edu

<u>Short reports:</u> You can submit a short report (1300 words or fewer) on research findings, practice, or policy issues. You can also submit a brief literature review. When you write a report for the newsletter, please consider that our readership is diverse, and ensure that the report will be accessible to readers outside your specialty area. <u>Reports about education and organizations</u>: The newsletter staff welcomes articles about teaching OHP at the undergraduate or graduate level. We also welcome articles about your organization's OHP-related activities. If you are engaged in an OHP-related activity as part of a solo practice, and you think the newsletter's readership would be interested, consider writing an article about the activity.

<u>Other reports</u>: The newsletter also publishes conference announcements, continuing education announcements in OHP or related areas (e.g., epidemiology, statistics, etc.), or reports on national or international news that pertain to OHP.

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From the Editor (cont'd.)

regardless of their disciplinary backgrounds.

Julia Limanowski and Jeannie Nigam give us an advance look at the upcoming APA, NIOSH, SOHP, Work, Stress, and Health conference, which will be held in Orlando from May 19 see many of our readers there.

Bill Gallo reports on the health impact of involuntary job loss. He tells the story in a personal way. Beginning with his dissertation in economics, he got caught up in a research effort that crossed into epidemiology, gerontology, and psychology. It is a story that underlines the cross-disciplinary nature of what many of us in occupational health psychology do.

Bob Sinclair, our Past President, contributes our Across the Pond feature. He writes about the EA-OHP conference in Rome. Bob has contributed to the *Newsletter* in many ways, and it was he who came up with the idea of having an Across the Pond feature. I find it fitting that Bob contribute the feature for my last turn as editor.

I wrote in my editor's welcome to our eighth issue that I have an interest in publishing articles that bear on the history of OHP. Shot through past issues, readers can find stories about the history of SOHP (http://sohp.psy.uconn.edu/ SOHPNewsletter11.pdf), EA-OHP (http://sohp.psy.uconn.edu/ SOHPNewsletterV7October2009.pdf), and Work & Stress (http://sohp.psy.uconn.edu/SOHPNewsletterV6May2009.pdf). In this issue there are two articles about the Journal of Occupational Health Psychology. In one article Lois Tetrick reflects on her five years as editor of the journal—Joe Hurrell takes over as editor January 1, 2011. In the second article, Jim Quick writes about the events leading up to the founding of JOHP and its early years. Jim reminded me that I made a small contribution to some of the early "institutional initia-

tives" he described. My profound wish is that the future editor the Newsletter continue to cover the history of our discipline.

This issue of the Newsletter continues our series that spotto May 22. It promises to be an exciting conference. I hope to lights the contributions of NIOSH, this time with two articles. A group of writers, led by Ted Scharf, contributes an article on fall prevention in iron workers. The article is based on a presentation at the International Conference on Fall Prevention and Protection, held in Morgantown and hosted by NIOSH early this year. The second NIOSH-related article, which was written by Jessica Streit, Jeannie Nigam, and Steve Sauter, is in keeping with a goal of the Newsletter that I mentioned earlier, namely to describe some of the history of OHP and OHP-related institutions. The article outlines the history of NIOSH's Work Organization and Stress-Related Disorders (WSD) Program, and brings that history up to the present.

> I encourage our readers to consider writing an article for a future issue. If you have an idea for an article, please start by emailing a proposal to me at ischonfeld@ccny.cuny.edu. I will pass your note to the future editor. If you are a member of SOHP, and would like to publish a book announcement, please get in touch with me.

Publishing the *Newsletter* is a team effort. I thank Kizzy Parks, Joe Hurrell, Jen Bunk, Al Rosenblatt, and Lori Francis for serving as associate editors and Janet Barnes-Farrell, Kim Davies-Schrils, Leslie Golay, and Tim Bauerle for serving as production editors during my tenure. I thank our many fine contributors. A newsletter needs content. Our contributors have provided us with first-rate content that interests our readers. I also thank my wife, Pearl Knopf Schonfeld, for being an all-around supporter while I have been engaged in my work as editor.



"I thank our many fine contributors. A newsletter needs content. Our contributors have provided us with firstrate content that interests our readers."

Graduate Student Issues Committee Update **Taylor Moore**

Colorado State University

The Graduate Student Issues Committee would like to thank all of those who attended the social event held at Thrive Restaurant during the 2010 SIOP conference in Atlanta. With close to 100 people attending the event, we are continuing to see tremendous growth in the number of people interested in OHP. Special thanks to Kyle Stanyar of Clemson University for finding and booking the trendy location, as well as arranging with the restaurant for the tasty appetizers that were served during the event. We are already planning our next social event. It will take place at the 2011 Work, Stress, and Health Conference in Orlando, Florida. We look forward to seeing you there.

The Graduate Student Issues Committee invites any student who is not yet a member of SOHP, to join. Student membership is reasonably priced and comes with many benefits, including a subscription to the Journal of Occupational Health Psychology. The membership form is available on the SOHP website (http://sohp.psy.uconn.edu/Index.html). The committee is hard at work helping graduate students. If you are a graduate student who has concerns that you would like to see addressed, please do not hesitate to contact me. Two important resources that this committee provides for graduate students are a job postings board and a resources page available on the SOHP website.

•The Job Postings Board is updated regularly with job openings and internships that are related to OHP.

•The Resources Page provides links to helpful articles related to such skills as writing a resume or vita, the job search, and interviewing.

If you have anything you would like to see posted on either of these pages, please refer to the website or email me (jeffery.taylor.moore@gmail.com).

A First-Time Attendee's Reflection on the Work, Stress, and Health 2009: Global Concerns and Approaches Conference

Jacalyn P. Dougherty

School of Nursing, University of Northern Colorado

With the acceptance of my poster about the research I conducted on stress and coping in student nurses, I headed to Puerto Rico for the Work, Stress, and Health 2009: Global Concerns and Approaches conference last November with a School of Nursing colleague. I got to dip my toes in the waters of a non-nursing gathering. Since I'd had experience with both attending and presenting at meetings in the US and occasionally abroad, traveling to a new venue wasn't out of the ordinary. What was different, however, was that it had been several years since I'd attended a conference outside of nursing. While I came to the event with fond memories of my doctoral student days in Developmental Psychology where students and faculty routinely attended meetings of the Society for Research in Child Development and the Society for Research in Adolescence, I also wondered about the extent to which occupational health psychology (OHP) offerings would mesh with my current commitments and interests as a nurse educator.

I found that there was little reason to worry about finding sessions on topics that fit with my current academic interests and personal needs for learning! As social scientists concerned with understanding the causes and consequences of behaviors and responses that affect the emotional and physical well-being of individuals, groups, and communities, nurses and occupational health psychologists have much in common. Many areas of study overlap—resilience, coping with disease states, workplace wellness, managing mental health problems, the distressing consequences of domestic abuse, unsafe and physically unhealthy work environments, and workplace incivility, to name a few examples. Given such common themes, those of us in nursing and psychology, disciplines that have both academic and practice components, often hear and agree with repeated calls for multidisciplinary research and knowledge-sharing.

My plan for this article is to discuss my experiences and perspectives as a first-time attendee. Perhaps these words will encourage more health care providers and psychologists to collaborate to better understand issues and concerns of patients, clients, and workers; share ideas for research practice; and disseminate findings.

The Art of Conference Attendance

Commentaries have been published on the topic of conference attendance and how to be a successful conference attendee (see, for example, van Dijk & Maier, 2006; Smeal, 2001; Warner, 2002; West, 2004). Most of these, not surprisingly, are directed at students and new faculty members and those just entering a particular professional role. Common themes emerge: the importance of taking an active role in the conference to enhance one's own professional development and contribute to knowledge development, socializing with the community of scholars in attendance to learn about trends and challenging ideas, and taking advantage of being away for a few days from one's home institution to experience a different local culture. Even for the experienced conference participant, there are lessons to be gleaned when one attends a meeting organized by contributors to a discipline other than one's own. Session set-ups may differ, speakers might be unfamiliar, scientific terms may vary, and attendees may even behave somewhat differently from those in one's "home" discipline, all of which can either prove frus-

trating or add to the excitement and interest of a multidisciplinary research conference.

As someone attending my first OHP meeting, and being from another discipline, how did I find my experience at *Work, Stress, and Global Health 2009*. It was great! What lessons did I learn? Many, and these I'll discuss in the context of how my experiences at the conference nicely "fit" with common recommendations for successful meeting participation, again in the hope that others will collaborate on projects and consider crossing disciplines to learn how work, stress, and health concerns are examined by scholars in different fields.

Finding sessions and posters of interest that mesh with one's research or teaching agendas: There was no doubt that the keynote presentations, session offerings, and research posters provided an opportunity to learn about a wide range of topics of relevance to health care providers, psychologists, new attendees, and returning scholars alike. Factors associated with health conditions such as obesity, type 2 diabetes, hypertension, post-traumatic stress, depression, loss of vigor, substance use and abuse, injury resulting from risk-taking and violence, workplace bullying, and job dissatisfaction were covered in a number of sessions that provided "big picture" trends and practical specialty content. Consistent with West's (2004) remark about professional gatherings, "Sessions are designed to make you think. Conferences are designed to make you think together," the Work, Stress, and Global Health 2009 meeting provided many opportunities to do just this!

Attending sessions that introduce new content or approaches to clinical issues: In many ways, deciding on which sessions to attend at a high-caliber professional research conference leaves one feeling like a "kid in a candy store." Nonetheless, the broad array of topics presented provided many opportunities to explore areas with which I wasn't particularly familiar, such as workplace bullying and lateral violence. It was sobering to hear reports about workplace incivility in nursing-nurse to nurse, physician to nurse, patient to nurse, experienced nurse to novice nurse, but I resolved to return to my undergraduate nursing foundations class with information about its prevalence and a plan to teach strategies and skills to help student nurses anticipate it, prevent it when possible, and to ameliorate its adverse effects. In light of The Joint Commission's (formerly JCAHO, the Joint Commission on Accreditation of Healthcare Organizations) (2008) published requirement that hospitals develop a code of conduct to address workplace incivility, this content was timely.

Discussing with speakers and other attendees their research interests and scholarly activities to learn about national and international trends: As I noted earlier, professional organizations occasionally publish material about being an effective conference attendee. However, planning to get the most out of a conference is only part of the story. Conference planners must develop an engaging program with committed speakers who have the potential to advance the field, the ability to inspire colleagues and new scholars, and the communication skills to convey to the attendees that the attendees' research, participation in scientific discourse, and collaborative efforts matter. ... (continued on page 4) ...





Jacalyn P. Daugherty School of Nursing University of Northern Colorado

> "Given such common themes, those of us in nursing and psychology...often hear and agree with repeated calls for multidisciplinary research and knowledge-sharing."

A First-Time Attendee's Reflection (cont.)

I noted that speakers not only respectfully answered questions from the audience during presentations, but also stayed around afterward for discussions with attendees. The several breakfast sessions, breaks, and receptions, including the students' social networking event, also provided opportunities for informal exchanges. These events reflected occupational health psychology's principles (Barling & Griffiths, 2002) and demonstrated a commitment to provide an environment that modeled the characteristics of "well" worksites. Lunchtime meals beside the pool away from the cold temperatures of Colorado were also favorite times!

Making connections: An important benefit of attending conferences that bring together people with diverse scholarly interests is the opportunity for networking. This was brought home when, following my return to Colorado, I was contacted via email by two different Puerto Rican students asking about our research team's nursing student stress study, including our procedures and tools for data collection. Although our contribution through sharing our materials was small, it still provided the opportunity for an exchange of ideas that would not have otherwise happened.

This conference also provided the opportunity for me to speak informally with a conference planner and an official from the National Institute of Occupational Safety and Health (NIOSH) about calling the attention of nursing researchers and educators to next year's **Work**, **Stress**, **and Health 2011** conference in Orlando. Our many common research interests underline the value of sharing knowledge that is pertinent to understanding workplace factors that discourage registered nurses from remaining in the profession. This is especially relevant at a time when the shortage of RNs in this country is expected to reach 285,000 by 2020 (Buerhaus, 2008), a trend similarly anticipated in other parts of the world. This shortage, while temporarily abated because of the current recession, is an important topic for study because of the impact a shortage will have on the quality of nursing services. Considering new ideas, new theories, and new perspectives for addressing this situation, and communicating these across disciplines, can help to provide solutions to a pressing concern.

Aiming to be inspired by presenters and to similarly inspire younger researchers and emerging scientists. An important role of academicians and experienced scientists is the nurturing and socialization of the upcoming generation of researchers and educators. At this conference, many graduate students and emerging scientists had the opportunity to present their research to peers and colleagues and thus gain more experience in the "practice" of scholarly communication. The preparation for presenting at an international, peer-reviewed conference serves an important function. By preparing talks and posters, individuals are challenged to refine nascent ideas and to provide clear explanations for theories under development. The involvement of so many young researchers in the conference was inspiring, and it appeared that the encouragement they received from mentors and more experienced collaborators will help their future research productivity.

Renewing friendships: Practicing what psychologists and nurses preach about the value of social relationships was in evidence at this conference. Judging by the hugs, handshakes, and fond greetings observed in the hotel's foyers and hallways, it was apparent that the meeting brought together many old friends and colleagues as a community of scholars. Members of our own research team, nurses from one state university, and OHP collaborators from another in a nearby city, likewise found time to socialize in a venue outside of our more task-focused meetings back home. Thus, an important aspect of a successful conference, the opportunity for colleagues to visit and renew friendships while away from their respective home institutions, was clearly in evidence.

Experiencing the local culture: As someone "born to travel," presenting at juried conferences has always held great appeal for me. It affords not only the chance to share scholarly efforts, but also provides well-justified, and sometimes funded, opportunities to visit other cities in the US and in other countries. On our trip, old and new colleagues visited a local restaurant for a traditional Puerto Rican meal, then walked to Old San Juan where we observed an outdoor concert with traditional music. What a rich experience this was! We attended the concert where people of all ages sang and danced (less likely to happen at home), and watched a seemingly ancient but spirited elder dance the salsa, hips swaying, with her cane. We were struck by her joy in dancing, but more so by the fact that she wasn't followed every step of the way by her care providers, arms outstretched, waiting to catch her if she fell!

Upon returning home, sharing your new ideas and understanding with your colleagues: Perhaps one of the most rewarding aspects of attending an international conference is the chance for "Show and Tell" upon returning home. The nursing colleague who attended the conference with me and I felt we had important information to share about the caliber of research presented, the wealth of topics being investigated, and the need for collaboration to further illuminate overlapping clinical concerns.

Summary

As a "first-timer" at the *Work, Stress, and Health 2009* conference, I obtained a great deal of working knowledge--both formal and informal--about topics in my own discipline that clearly overlap with research interests of many occupational health psychologists. The experience reaffirmed for me that collaborative research and scholarly exchanges that allow mutual sharing of ideas and the integration of current knowledge across disciplines provide many benefits. These benefits accrue not only to conference participants and their respective disciplines but, more importantly, to individuals receiving professional services. Yes, I'll be back, bringing more colleagues with me!

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"The experience reaffirmed for me that collaborative research and scholarly exchanges that allow for mutual sharing of ideas and the integration of current knowledge across disciplines provide many benefits.."

Occupational Health Psychology at Kansas State University

Amy Conner and Rick Best

Kansas State University

The Occupational Health Psychology (OHP) Graduate Certificate at Kansas State University (KSU), a land grant institution in Manhattan, Kansas, was established in 2000, and is one of the first OHP programs to be established in the U.S. Funding came from the American Psychological Association and the National Institute for Occupational Safety and Health. Since it's beginning, the program has admitted a total of 35 students. Twelve have completed the certificate. Of these, five were Ph.D. students in industrial and organizational psychology, four sought Ph.D.s in social psychology, and three were from other social science disciplines.

The OHP certificate program is unique in several ways. First, the program grants a certificate and not a degree. This allows for more opportunities to enroll students from a wide variety of academic areas, including disciplines beyond psychology. Second, all of the courses are offered online. The online offerings allow for outreach beyond Manhattan, Kansas, and beyond traditional full-time psychology students. Third, the structure of the program allows graduate students in psychology at KSU to develop research and teaching skills in OHP while pursuing degrees in their primary academic areas. Finally, while not unique, the OHP program was jointly developed by I/O and social psychologists.

The four courses described below have been designed to provide comprehensive instruction in all aspects of OHP. They include the theoretical foundations as well as research methods and practical applications. The courses are offered in the sequence indicated, one each semester, allowing students to complete the program in four semesters.

I. PSYCH 840, Pro-Seminar in Occupational Health (3 credit hrs.), is an entry-level first-year graduate course. This class surveys the physical, psychosocial, and emotional problems associated with work in professional, industrial, and governmental settings. Interdisciplinary approaches to such problems are emphasized and students are encouraged to apply their own experiences in work situations.

II. PSYCH 841, Seminar in Occupational Behaviors (3 credit hrs.), is a second-year graduate class that explores organizational issues and intervention strategies for dealing with occupational health problems. Content focuses on the general principles of effective intervention, including healthassessment techniques, managementworker communications, and the implementation of health maintenance and improvement programs. Representative case studies are reviewed in class sessions.

TTT PSYCH 807, Research Methods in Occupational Health Psychology (3 credit hrs.), is designed to provide a review of standard social science research methods. This course relies on a set of supplemental research articles and links to relevant web pages to illustrate problems in OHP. Topics included are the logic and ethics of social research; finding and reading research reports; measurement; research design and internal validity; types of measures; survey methods; guasi-experimental designs; correlational methods; qualitative research; cross-sectional and longitudinal research; and interpretation of research findings and applied research.

IV. PSYCH 842, Practicum in Occupational Health Psychology (3 credit hrs.), is a second-, third-, or fourth-year course that provides practical experience with occupational health problems. Students are assigned to observe and evaluate local work sites which may include university facilities, manufacturing firms, a medium-sized hospital, nursing homes, the city-county police force, the fire department, the public school system, or a nearby army base. Students are required to identify salient health problems as well as develop proposals for implementing programs to address these problems. A committee of collaborating faculty supervises this work, serving as consultants for the students.

In addition to these graduate courses, an undergraduate course in OHP is taught to juniors and seniors. Enrollment each fall and spring semester ranges from 10 to 15 students, with most from academic areas outside psychology.

Students who have completed the certificate program are working in a variety of employment situations. Three graduates are full-time faculty members and teach health and OHP-related courses. Four graduates are employed in occupational health-related areas. These positions include one person working with a large contractor doing health-related research for the federal government, one person serving in the U.S. Navy in a health-related position, another consulting with school districts on health-related issues, and a fourth doing vocational counseling. Finally, five graduates work in general applied settings and often work on occupational health-related projects (e.g., job burnout).

The Faculty at KSU

Laura Brannon, a social psychologist, conducts research on persuasion and social influence. She is also interested in how spirituality and values influence an individual's behavior and emotional well-being. She is engaged in an ongoing program of research concerning the development of effective communications for the purpose of disseminating information on health practices. Her work has been published in leading professional journals and is under consideration for funding by the National Institutes of Health.

Ronald Downey is an expert in quantitative methods, questionnaire design, and survey analysis, and has published many papers in these areas. He has studied the impact of part- in comparison to full-time employment, employees' service orientation, and work-family conflict. Prof. Downey has conducted research on the antecedents and consequences of burnout. He has also worked as a personnel management consultant in private industry, and conducted research on food preferences.

Clive Fullagar has published extensively on labor-management relations, trade union issues, and socialization practices in the workplace. He conducted research on labor organizations that emerged in South Africa for the purpose of protecting Black workers during the apartheid era, an era when being a member of such an organization incurred significant personal risk. More recently he has conducted research on work engagement, positive psychology, and workplace socialization practices. He has had substantial experience as a consultant to local government and private industry.

Michael Tagler teaches courses in social psychology, applied social psychology, industrial-organizational psychology, statistics, and research methods. ... continued on page 6) ...





Amy Conner Kansas State University



I/O Psychology Students at Kansas State University

OHP Website at KSU:

http://www.dce.k-state.edu/ artsci/occupationalhealthpsych/

OHP at KSU (cont'd.)

His research interests include selective exposure to information, persuasion, romantic jealousy, attitudes toward the poor, and health (particularly sleep habits). He is concerned with real-world social problems such as prejudice, inequality, and job stress.

Amy Conner has a broad interest in changing negative health behaviors. Her dissertation research investigated approaches to reducing undergraduate binge drinking. She has published research on changing behaviors that put individuals at increased risk of AIDS transmission. In addition, she has a specific interest in OHP. She earned an OHP certification in 2003, and has conducted research on techniques for reducing job burnout. She also conducts research on the interaction between personality characteristics and the efficacy of various coping skills. Dr. Conner has taught online courses for the OHP certification program for six years.

Rick Best is a senior health services researcher for Lockheed Martin Business Process Solutions, the primary contractor for the Military Health Systems Clinical Quality Management Program. He has conducted applied health services research for over a decade in both the Veterans Health Administration and the Military Health System. His research spans a variety of organizational and policy topics, including the implementation and use of clinical practice guidelines, clinical microsystems, leadership, workforce

analyses, and the quality of healthcare performance. His research results are used to design continuing education credits for healthcare personnel in the Military Health System and guide policy development and implementation for the Department of Defense. In his dissertation research, he examined the influence of personal and environmental characteristics on job burnout among healthcare workers.

Over the 10 years of its operation, students in KSU's OHP program have developed an in-depth knowledge of research and practice in OHP. Graduates of the program have gone on to productive professional careers. During their tenure as students at KSU they have been equally productive in presenting and publishing health related research. We anticipate that the next ten years will be an equally productive period.







Kansas State University



I/O Faculty (from left to right): Pat Knight, Ron Downey, Tori Culbertson, and Clive Fulllagar

Education and Training Committee: Brief News Update

Guillermo Wated

Barry University

The Education and Training Committee is working on organizing two additional events for the upcoming conference in Orlando: 1) Practices, Issues and Solutions in Leading OHP Training Efforts: An Open Discussion and 2) Identifying Core Competencies for the Field of OHP: An Expert's Commentary session.

The purpose of the first session is to provide a forum to openly discuss practices, challenges, solutions, and issues that program administrators face. This session will be open to all who are involved in directing, coordinating, or otherwise leading OHP training efforts across disciplines as well as those who are interested in developing training programs or learning more about the subject. The SOHP Executive Committee would like to include this session in the WSH conference program on a recurring basis.

If you are currently involved in directing/coordinating/leading OHP training efforts, please send the following information to Jessica McKenzie-Peterson at jmckenzie@apa.org . This information will help us update our database so that we can target our communication efforts and successfully bring together in Orlando those of you who are interested in administration issues related to OHP programs.

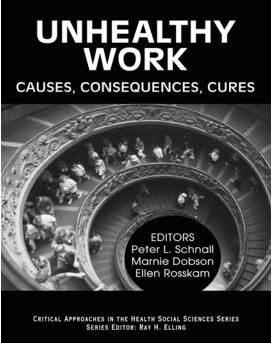
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Guillermo Wated Barry University

Name: Position Title: Affiliation (University/Organization): Address: Phone Number: Email: How exactly are you involved in directing/coordinating/leading OHP training efforts?

The second session will be conducted in collaboration with EA-OHP. The goal of this session is to move forward toward identifying core competencies for the field of OHP with the idea that these core competencies could then be used as the basis for offering guidance to individuals who are interested in developing OHP programs or concentrations. The session will take place during the pre-conference day and the event will be by invitation only.





BAYWOOD PUBLISHING COMPANY, INC.

ABOUT THE BOOK:

Work, so fundamental to well-being, can also adversely affect our health well beyond the usual counts of injuries that we think of as "occupational health." Some of the ways in which work can be organized—its pace and intensity, lack of control over the work process, workplace injustice and unfairness, and employment insecurity—can be as toxic to the health of workers as chemicals in the air. These work characteristics can be detrimental not only to mental well-being but also to physical health. Scientists refer to these features of work as "psychosocial hazards." One key pathway from the work environment to illness is through the mechanism of stress. This is in contrast to the popular psychological understanding of "stress," which locates many of the problems with the individual rather than the environment. In this book we advance a social environmental understanding of the workplace and health. The book addresses this topic in three parts: important changes taking place in the world of work in the context of the global economy (Part I); scientific findings on the effects of particular forms of work organization and work stressors on employees' health, "unhealthy work" as a major public health problem, and estimates of costs to employers and society (Part II); and approaches to improve working conditions, prevent disease, and improve health (Part III)

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Inequality Jeffrey V. Johnson

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Peter L. Schnall, Marnie Dobson, Ellen Rosskam, and Paul Landsbergis

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Hazard Recognition for Ironworkers: Preventing Falls and Close Calls— Updated Findings

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Ronald Repmann,² Frank Migliaccio,² Julia Limanowski,¹ James Creegan,² Dane Bowers,² John Happe,² and Antionette Jones¹

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This is an update of preliminary findings (Scharf, et al., 2009) from a study to:

1) evaluate two hazard recognition training interventions to prevent falls and close calls in construction;

2) investigate the situations, hazards, and precursors for falls and close calls;

 develop a taxonomy of precursors to increased risks for falls and close calls;

4) identify the barriers to reporting and correcting these risky situations;

5) connect these observations to the interrelationships of productivity, workload, safety, and risks for injury in hazardous work environments; and to

6) recommend crew-based organizational changes to promote communication about, and rapid mitigation of, such workplace hazards.

Preliminary results from the curriculum evaluation are limited to a report of participants' work experiences. A summary of the preliminary findings from the focus groups and a proposal for a study of incidents, injuries, and illnesses situated within local unions are both described.

Introduction

Falls continue to cause the largest number of fatalities and a major proportion of injuries in the construction industry every year (BLS, 2009; NIOSH, 2004). Constantly changing hazardous work environments like construction impose a dualattention demand on workers (Kidd et al. 1996; Kowalksi-Trakofler, et al., 2003; Scharf, et al., 2001). As the work day extends, fatigued workers may be less cognizant of developing or changing hazards in their immediate surroundings. This update addresses hazard recognition for ironworkers, with an emphasis on barriers to reporting hazards, incidents, injuries, and illnesses on the job. The current project derives from a 1999 request by safety personnel at the Paul Brown Stadium construction site in Cincinnati to produce training materials for hazard recognition for risks for falls in construction. These materials were modeled on curricula already in existence for underground mining (Cole, 1997; Kowalski et al., 1995; Perdue et al., 1994; and Rethi et al., 1999). The hazard recognition component of the curriculum consists of thirteen stereo images, and a title slide, suitable for use in a classroom or on the jobsite. The instructor's guide was completed in 2001, (Ramani et al., 2001); the companion simulation exercise was completed in 2004. (Wiehagen et al., 2004).

Objectives and Methods

The study reported here is currently evaluating both the hazard recognition photographs and the simulation exercise with ironworker journeymen and apprentices. Then, risks for falls and close calls¹ and barriers to reporting and correcting safety hazards are being explored through a series of focus groups with the participants.

This study is being conducted in collaboration with the International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers, and with CPWR - The Center for Construction Research and Training. The evaluation of the training curricula includes, pre-, post- and delayed posttests, including an assessment of safety climate with both apprentice and journeymen ironworkers. The investigation of close calls for falls is conducted using focus groups of thirdand fourth-year apprentice ironworkers and experienced journeymen who are also apprentice trainers at their home locals.²

Results

A total of 284 ironworkers have completed the demographics intake survey, results from which are reported in Table 1. The median age of the apprentices is 28, with 2.5 years' experience as an ironworker. The median age for journeymen is 45, with 20 years' experience. Table 1 also lists the median number of falls, close calls, and injuries reported by the current sample. The median has been selected because the distributions are skewed. Specifically, the interpretations of a close call and an injury vary among participants, from extremely serious events that may occur a few times in a career, to everyday injuries and potential incidents.³ The range (min.-to-max.) is also listed. Two hundred thirty-eight ironworkers have participated in the evaluation of the training curricula, as of April 1, 2010, (36 journeymen, 202 apprentices).⁴ In addition, 15 focus groups have been conducted: 10 exploratory, 5 confirmatory, with 127 participants. The exploratory groups have used the traditional approach of asking broad, open-ended questions and gradually adding specificity to questions as the group proceeds (Krueger, 1994). The confirmatory groups have stated a series of explicit findings from preceding exploratory groups and asked the participants to comment on those findings. Six focus groups have been conducted with journeymen: 4 exploratory, 2 confirmatory. Nine groups have been conducted with apprentices: 6 exploratory, 3 confirmatory. Table 2 summarizes the focus group findings to date.

Discussion and Conclusions

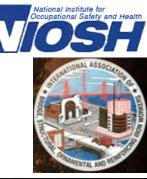
The transcripts from the focus groups will not be available for systematic analysis for several months. However, upon reaching apparent saturation with the exploratory focus groups, a confirmatory approach was begun. This method has been illuminating. One of the most robust and consistent findings from both the exploratory and confirmatory focus groups concerns the concept of a "close call." As noted in the abstract, one of the original goals of this study was to

develop a taxonomy of the most common or frequent precursors to increased risks for falls and close calls in construction. ... (continued on page 9) ...

Ironworker falls from above ground level (AGL) and other demographic information									
Ironworker Demographic Information	n	Age	Experience as an Ironworker (years)	Falls from AGL (#)	Co-worker falls from AGL (#)	Close calls for a fall from AGL (#)	Injuries, NOT from a fall from AGL (#)	Close calls, NOT from a fall from AGL (#)	
Apprentices	226	28.0 (19-53)	2.5 (0-10)	0.0 (0-10)	0.0 (0-20)	0.0 (0-30)	1.0 (0-500)	1.0 (0-1000)	
Journeymen	58	45.0 (27-68)	20.0 (4-44)	1.0 (0-12)	2.0 (0-43)	4.0 (0-100)	5.0 (0-500)	10.0 (0-1124)	
Combined groups	284	30.0 (19-68)	3.0 (0-44)	0.0 (0-12)	0.0 (0-43)	0.0 (0-100)	1.0 (0-500)	1.0 (0-1124)	

Page 8







"As the work day extends, fatigued workers may be less cognizant of developing or changing hazards in their immediate surroundings."

Hazard Recognition for Ironworkers (cont'd.)

pyramid (a.k.a. accident pyramid, 1931 and 1959), it was anticipated that an inquiry into close calls and "near misses" would open up a wealth of new observations and insights into the causes and precursors of falls and other injuries experienced by ironworkers. The clear finding from the current study is that the only difference between a close call and an actual injury event is the existence or extent of the injury. Thus, a fall with a serious injury that could have resulted in a fatality may be described as a "close call," rather than an injury. The conclusion is: to investigate injuries and fatalities, we must expand our data collection to include all incidents on the construction worksite regardless of any injury consequences.

Reporting injuries is a serious and complex problem for ironworkers. Most ironworkers will make a report to the steward or foreman regarding any serious injury, even if the injury is not immediately apparent (e.g., strain or sprain). Some apprentices worry that their steward (union representative) will identify them to their employer and are wary of making any injury report. Further, there is a strong reluctance to report all but the most serious injuries to employers unless such a report is unavoidable. Apprentices and journeymen believe that many contractors maintain "do not hire" lists of employees who have been injured on the job, and that if they report an injury, they will be laid off as soon as they are released from "light duty." Journeymen have concluded that some system of no-fault reporting is essential to be able to report workplace hazards and to promote safety on the job. The interlocking relationships among contract bids and schedules, insurance rates, OSHA-recordable rules, and fear of layoff make it impossible for union members to report hazards and for contractors to be open and receptive to such reports. The conclusion is: until there is a no-fault system for reporting hazards and improving safety on the job, there will always be too many barriers to reporting hazards and injuries and to improving safety. Only the most serious, OSHA-recordable injuries will be reported with any degree of reliability.

To address the hazard, safety, incident, injury, and illness reporting problem, apprentice trainers have suggested developing an anonymous survey of their apprentices to be completed every three months. By including hours of work during the preceding quarter, it will be possible to calculate rates of exposure to all of the hazards and incidents reported. Further, by coordinating this survey

Consistent with Heinrich's classic safety through the apprentice trainers, the participants will not be known outside their locals and the results will be aggregated and reported for all the participating local unions. A draft of this proposed survey is currently under development.

> Ironworker Local 769, Ashland, KY, has established a comprehensive approach to contract bidding that includes specifications for the number of crew, schedule, and safe work practices on every job, notably including 100% tie-off⁵ and 100% injury reporting. Details, including sample job bids and injury records will be disseminated to experienced instructors in other Ironworker locals. The goal is to identify the components of the safe work practices used by Local 769 that can be adopted by other Ironworker locals throughout the U.S. and Canada. Other locals and a few companies have been noted as utilizing some similar practices of work organization. These practices will be explored and compared.

Acknowledgements and disclaimer

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The findings and conclusions in this manuscript are those of the authors and do not necessarily represent the views of the National Institute for Occupational Safety and Health.

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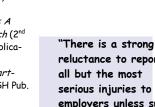
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reluctance to report all but the most serious injuries to employers unless such a report is unavoidable."

- Table 2: Summary of the focus group findings Close calls are distinguished from an actual incident only by the severity of injury. The precursors to the incident, possible causes, and potential for prevention are no different. A close call may be an injury that did not happen, or an injury that occurred where a fatality could have occurred. Barriers to reporting injuries or hazards and improving safety include

 - fear of layoff, followed by inclusion on a company's "do-not-hire" list; jeopardizing the progress of the job, e.g. safety "interferes" with productivity; b. Ironworker culture, e.g. cultural changes affecting safety over the past 3 decades; c. d.
 - competing against non-union bids; not anonymous, plus drug testing for injured worker and immediate crew; some union stewards are friends with contractors, i.e. apprentices who report a
 - problem are worried that they will be identified and subject to layoff;
 - employer-driven monetary incentives for no OSHA-recordable injuries; g. h. contractor concerns regarding insurance rates;
 - employers' requests to injured employees to use personal health insurance to i.
 - cover medical treatment for a workplace injury assignment to light duty, followed by a layoff;
 - Conclusion: Until there is a no-fault system for reporting hazards and improving safety on the job, there will always be too many barriers to reporting hazards and injuries and to improving safety. Only the most serious OSHA-recordable injuries will be reported with any degree of reliability. Apprentice trainers have agreed to test out a method to collect incident, injury, and
- illness data through an anonymous survey of their apprentices within their local unions every three months.
- Ironworker Local 769, Ashland, KY, has established a comprehensive approach to contract bidding that includes specifications for the number of crew, schedule, and safe work practices on every job, including 100% tie-off⁸ and 100% injury reporting.

Scharf, T., Pierson, P., Repmann, R., McCann, M., Migliaccio, F., Limanowski, J., Hunt, J., III, Creegan, J., & Bowers, D. (Nov., 2009). Hazard recognition for ironworkers: Preventing falls and close calls - Preliminary findings. Poster: 8th International Conference on Occupational Stress & Health. San Juan, PR.

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Notes

1. The wide range of definitions for a close call is addressed in Table 2 and the Discussion.

2. Research instruments available from Ted Scharf: tscharf@cdc.gov.

3. Other descriptive results available by contacting Ted Scharf: tscharf@cdc.gov.

4. Data entry for the curriculum evaluation data is underway; results are not yet available.

5. Ironworkers tie-off fall arrest harness lanyards to a 5000 lb. anchor 100% of the time.



Research Resource

Understanding and Using Multiple Mediation Models in Occupational Health: An Introduction and Guide to Application

Christopher J. L. Cunningham, The University of Tennessee at Chattanooga

Most of us have a standard set of statistical tools that we use on a regular basis. Although these techniques were current when we learned them in graduate school, they may be out of touch with recent advances in the field. In this article, I summarize a presentation that I gave at the November 2009 Work, Stress, and Health Conference; the purpose of the presentation was to teach the basics of a new statistical approach to testing models that involve multiple mediators (Cunningham, 2009). The impetus for my presentation is a growing body of excellent work by Preacher and Hayes. My thesis advisees and I began applying Preacher and Hayes's multiple mediation strategies-my advisees generate more complicated mediational models than I could imagine. Preacher and Hayes's methods are helpful for those beginning to explore complex mediational models because the models do not require extensive knowledge of advanced statistical techniques such as structural equation modeling (SEM) and they are fairly well-documented. I review the concept of mediation, discuss the concept of multiple mediation, present methods for testing multiple mediators, and provide tips and strategies for summarizing the results from multiple mediation analyses. I also provide any interested readers with several resources for additional and more detailed information. Mediation?

I begin by providing a brief primer on mediation (for some of you the primer will be a review). When we state that we are testing *mediation* we imply a complex set of relationships among two or more predictors and an outcome. Central to this type of model is the concept of an indirect effect of one predictor variable (X) on an outcome variable (Y), through a mediating variable (M). A proper test of this type of model requires careful re-

search design and a strong theory about the causal connections among these variables. Figure 1. Basic Mediational Model

 $\begin{array}{c} X \\ \vdots \\ \end{array} \xrightarrow{M} Y \\ \vdots \\ \end{array}$

A basic mediational model (Figure 1) includes several causal connections

linking $X \rightarrow M$, $M \rightarrow Y$, and $X \rightarrow Y$. It is also important to note that there are times when the intervening mediator, M, does not completely account for the link between X and Y. This condition is often termed "partial mediation," referring to a situation where the effect of X on Y is not fully mediated by M. In Figure 1 X affects Y through Malthough X still has a direct effect on Y as represented by the dashed line. Finally, it is critical to remember that mediation is not the same thing as moderation, although moderation is a topic I will not discuss here.

Divining Mediation

Given how we are wired to seek explanations, it follows that a primary reason for mediational models is to better explain even obvious connections between X and Y. It is also important, however, not to forget there may be relationships between X and Y that are not obvious, and that in fact only exist through the involvement of one or more mediating variables (i.e., full or complete mediation; Preacher & Hayes, 2004; Shrout & Bolger, 2002).

Statistical approaches for testing mediation models abound. MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) compared 14 different approaches to testing mediation. Despite this diversity, the "everlasting gobstopper" (i.e., dominant) method for testing mediation over the last 20-plus years has been Baron and Kenny's (1986) causal steps approach. This method involves estimating a series of regression models: (1) $X \rightarrow Y$, (2) $X \rightarrow$ M, (3) $M \rightarrow Y$, and then determining (4) if the inclusion of M with X leads to a decrease in the absolute value of the path coefficient representing $X \rightarrow$ Y. The Baron-and-Kenny approach makes intuitive sense and can be conceptually helpful when one is trying to determine if there is mediation rather than moderation. However, advances in statistical and analytical methods have produced better, more informative methods for statistically testing hypothesized mediational models (Hayes, 2009)

Main Causal Steps Limitations Although it is popular, MacKinnon et al. (2002) showed that the causal steps approach for detecting mediation effects is of limited value. The following are among the limitations to

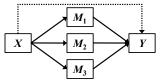
this popular method (Preacher & Hayes, 2008; Shrout & Bolger, 2002): Effects of multiple mediators cannot be simply tested and/or compared against each other in a single model. There is no "built-in" or consistently used technique for statistically testing indirect effects (the ones that pass

through the mediator). Researchers may miss/ignore fully mediated relationships in which X and Y are not related, *except* through the mediator or set of mediators (e.g., Collins, Graham, & Flaherty, 1998). Very large sample sizes are needed to maintain adequate statistical power and acceptable Type I error rates (e.g., Preacher & Hayes, 2004).

Although these limitations needed to be clearly presented to researchers, a readily useful alternative analytical approach needs to be presented. Surely there are alternatives...

The Promise of Multiple Mediation Recent efforts to address the preceding limitations have generated promising alternative approaches to more adequately testing mediational models. In addition, these newer methods begin to address the question of whether, in the case of a model with multiple mediators, such mediators function independently or simultaneously as a set (which is more realistic). As a general alternative to simple mediation (Figure 1), multiple mediation allows us to identify, model, and predict outcomes with complex antecedent chains (see Figure 2).

Figure 2. Basic example of a multiple mediation model



Apart from just looking "neat," an appropriately developed and tested multiple mediation model allows researchers to: (1) identify specific and total indirect effects (via one mediator and through all mediators as a set), (2) contrast mediators to determine relative influence (not directly possible when running multiple regression analyses to test each mediator separately), ... (continued on page 11) ...





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"Preacher and Hayes's methods are helpful for those beginning to explore complex meditational models because the models do not require extensive knowledge of advanced statistical techniques...and they are fairly well-documented.."

Multiple Mediation in OHP (cont'd.)

and (3) explore whether the effect of, say, M_1 , to mediate the impact of X on Y is conditional on the inclusion of M_2 and M_3 in the model. In addition, the simultaneous testing of multiple mediators in a single model does not require the investigator to expect, nor identify, a significant $X \rightarrow Y$ relationship before continuing to test for the possible role of an intervening mediator. In other words, the focus is shifted away from direct effects and onto the indirect effects that are the primary reason for testing a mediational model in the first place (Preacher & Hayes, 2008).

How to Test for Multiple Mediation

If you have read this far you might be thinking, "That sounds pretty neat - but how do I do that?" The answer I usually give is, "Very carefully." Although the statistics behind performing these types of analyses are complex, thankfully, I do not have to explain them here because several highly intelligent, quantitatively-minded authors have already written extensively on these methods. In the interest of user-friendliness, I will summarize this developing literature briefly and try to point you in the right direction to get started with multiple mediation.

There are several ways to test a multiple mediation model. The weakest and least appropriate is the traditional causal steps approach. In Goldilocks terminology, this would be the "too little" approach because of how little information you actually gain from running multiple regression analyses and then trying to infer mediation. The strongest and most comprehensive method is with the use of ML/MLM estimation in an SEM program (Preacher and Hayes [2008] provide Mplus syntax if you are interested). An SEM approach is comprehensive because an investigator can account for measurement error through the building of measurement and structural models. This approach also allows for bootstrapping, corrected confidence intervals, and comparisons of indirect effects. Unfortunately, this approach also requires large sample sizes, and at least an intermediate level of experience with SEM. Thus, this approach would be "too much" for many students, practitioners, and even well-established researchers.

The "just right" alternative for multiple mediation analysis may be found in an SPSS macro and syntax file developed and described by Preacher and Hayes (2008). This approach uses OLS regression based on measured scale scores within the SPSS program (SAS code is also available). This approach can work with smaller samples and is relatively simple to use. A menu-based SPSS script option is also available, although you will have more flexibility and a better understanding of the analysis if you push yourself to use the macro syntax (demonstrated in a bit). Preacher and Hayes's SPSS macro permits bootstrapping, corrected confidence intervals, and comparison of indirect effects. By the way, the syntax code and macro file, along with a tremendous amount of supporting information are available *free* via the Internet (links below). A few more details and suggestions may help you avoid wasting time and effort when you are ready to get started.

Multiple Mediation in SPSS

Preacher and Hayes's (2008) analysis option relies on pre-constructed, partially completed syntax files (macros) that researchers copy and paste into SPSS and then manipulate to analyze their own data. This macro is especially useful if you: (a) have never considered multiple mediator models before, (b) do not have intermediate/advanced SEM knowledge, (c) have a rather small Nand questionable variable normality. This last benefit comes through the integration of bootstrapping into the estimation of indirect effects.

Bootstrapping is a method of generating, from the data you collected, a representation of the sampling distribution of your modeled indirect effects. This approach does not assume symmetry or normality of the sampling distribution of the indirect effect. Bootstrapping draws a large number of mini-samples (with replacement) from your data, and re-analyzes the specified relationships. This approach is especially important in multiple mediation research, given the complexity of the models being analyzed and the fact that indirect effects are rarely normally distributed. Because of all this, bootstrapping can give us a chance to form decent inferences from our mediation analyses, especially if we focus on the biascorrected estimates (the percent bootstrap estimates tend to be asymmetrical; e.g., Preacher & Hayes, 2004). Following these steps should save you some considerable time if you decide to try this approach when analyzing your

next multiple mediation model:

Go to http://quantpsy.org

Click on "SPSS and SAS macros to accompany Preacher and Hayes (2008) on multiple mediator models."

From this next page, start by downloading and reading Preacher and Hayes's (2008) paper.

When you are ready, download the most recent syntax.

Download any other updated supplementary files that may be posted there and review them (updates have been pretty frequent since 2008, so check often).

Open your data file in SPSS.

Open the macro syntax file that you downloaded and run the complex syntax file to prepare SPSS to perform the proper analysis .

NOTE: Missing values should be purged from the data set prior to running this analysis; it will use listwise deletion anyways, but this can save you some hassle.

NOTE: At this time, all mediators must be quantitative; no categorical mediators.

Copy and paste the first few lines of the template code at the end of the syntax file to a later part of your syntax window .

Modify this copy and pasted syntax code to fit your analytic objectives.

NOTE: The macro code in its entirety is very long, but the portion you have to work with as a template to fit your analysis needs is short and straightforward. Here is that template code with some additional explanation of its elements (additional help can be found on the Statistical Mediation and Moderation Analysis Facebook group page): ... (continued on page 22) ...



Across the Pond

When in Rome...Go to an OHP Conference

Robert R. Sinclair

Clemson University Past-President SOHP I have struggled to find an easy way to summarize the many wonderful aspects of the 9th Conference of the European Academy of Occupational Health Psychology

conference (March 2010). With so much interesting research, many wonderful people, and a truly impressive venue, what could I say that would truly capture how I felt about attending this conference? After much reflection, I decided that the best thing I could say about it was this: *They served wine on the conference breaks!* After a glass or two, I have to say that I would rate my occupational health as "5 = strongly agree." Obviously, we in SOHP still have much to learn from our European colleagues!

The EA-OHP conference always creates a dual opportunity to hear about the latest and greatest research in OHP and to visit one of Europe's many beautiful and historic cities. This year was no exception, as the conference was held in Rome, at the Pontifical Urbaniana University (http://www.urbaniana.edu), which has historical roots tracing back to the year 1627 and which sits on a hill, overlooking the Vatican and many of Rome's other historical treasures. History aside, we were there to learn about the latest research in OHP and as usual, the conference did not disappoint. I attended many interesting presentations on a wide range of topics of considerable interest to practitioners and scientists, as well as some focused on shaping social policy responses to OHP research. The conference proceedings are available on the EA-OHP website (<u>http://eaohp.org</u>). Even a quick skim of the proceedings will show the wide range of high quality OHP research currently being conducted by people around the world.

Although I attended many interesting sessions, three were particularly memorable for me, for different reasons. First, *Cary* Cooper gave a keynote address titled *Enhancing Mental Capital and Well-being in the Workplace*. I had, of course, known about Cary's work for quite some time, but had never met him before. Lois Tetrick and I shared a cab with Cary from our hotel to the venue and it was nice to get a chance to visit with one of the most productive OHP scholars in the world. Cary's talk dealt with some of the reasons to be concerned with psychological well-being at work. Although he was speaking to a sympathetic audience, Cary's address was nonetheless important and interesting.

I also had the opportunity to participate in an invited meeting led by Eusebio Rial-Gonzalez of the Occupational Safety and Health Administration of the European Union (EU-OSHA). The session described the European Survey of Enterprises on New and Emerging Risks (ESENER). The ESE-NER project is a large-scale survey of European businesses (covering 31 countries) that addresses occupational safety and health concerns. The session brought together a few dozen international experts to discuss the findings to date, as well as future directions for the ESENER program. It was a very interesting discussion and the ESENER project provides a model for experts adapt in other parts of the world. I expect that we will begin to see many interesting articles out of this research program in the years to come. For more information about this program visit: www.esener.eu.

Finally, I once again had the opportunity to attend the annual meeting of the International Coordinating Group for Occupational Health Psychology (ICG-OHP; http://www.icgohp.org). The ICG-OHP is a group composed of representatives from several important OHP organizations around the world, including SOHP, EA-OHP, NIOSH, EU-OSHA, and APA as well as the editors of the Work & Stress and the Journal of Occupational Health Psychology. The group meets each year at the Work, Stress, and Health and EA-OHP conferences. I have now attended perhaps four of these meetings, each getting progressively more specific and substantive in the issues addressed at the meeting. These meetings reflect the growing depth and breadth of OHP-related collaboration on both sides of the Atlantic, addressing issues such as the timing and content of the major conferences, graduate training in OHP, and international collaboration on scholarly products. As time goes on, I expect SOHP members to see more and more tangible benefits from the efforts of this group, and I look forward to seeing the ICG-OHP continue to develop in the future.

One of the great features of the conference was that all attendees received a copy of a new OHP book titled *Contemporary Occupational Health Psychology: Global Perspectives on Research and Practice*, which was edited by Jonathan Houdmont and Starroula Leka and published by Wiley-Blackwell. SOHP endorsed this book, although EA-OHP certainly deserves all of the credit for putting it together. It is available for purchase at Amazon.com and includes many chapters on cutting edge topics in OHP. I have already found several of the chapters useful for my own research and have added several others to my "must read" list for the upcoming months.

Every time I attend an OHP conference, I am reminded that we are in the midst of a renaissance for OHP. Each year brings more new professionals with a passion for OHP and the quality and sophistication of OHP scholarship continue to grow. Of course, there is a lot of work yet to be done, and new concerns will surely arise. However, as this year's EA-OHP conference demonstrated, there are many reasons to be delighted about the present state of occupational health scholarship and many more reasons to be excited about the future!





Robert R. Sinclair Clemson University

"I am reminded that we are in the midst of a renaissance for OHP. Each year brings more new professionals with a passion for OHP and the quality and sophistication of OHP scholarship continue to grow."

Reflections on Editing the Journal of Occupational Health Psychology Lois Tetrick, George Mason University

I have had the privilege of being editor of *Journal of Occu*pational Health Psychology for the past five years. In 2006 I became only the third editor of the journal, following in the footsteps of James C. Quick and Julian Barling. I assumed the editorship at a time when occupational health psychology was emerging as a field and gaining recognition internationally in the occupational health and safety community. *JOHP* is the flagship journal for occupational health psychology in the U.S. From the beginning, it was an international journal with extensive participation by international scholars among its editors, editorial board, reviewers, and authors.

One of the most delightful aspects of editing *JOHP* has been the very positive interaction I've had with scholars from around the world. No journal can exist without a dedicated cadre of excellent scholars who submit cutting edge research for publication and provide quality, developmental feedback on the manuscripts they review.

As I look back on my five years as editor, I see that several things have occurred. First, *JOHP* has experienced a substantial increase in the number of manuscripts received each year. Our acceptance rate has remained around 20% and the number of revisions before acceptance is on the high end compared to other journals. This may be a source of frustration for our authors but the intention is to be developmental—and helpful—throughout the editing process. In addition, *JOHP* continued the path initially set but expanded the number of topics we cover. There has been, however,

some shift in focus.

For example, we increased the number of articles published

on work-family research. This increase, which has also occurred in other journals, reflects, I believe, growing interest in the work-family interface. Similarly, there was a decrease in stress research at some levels such as tests of overarching theories involving, for example, the Job Demand-Control Model; this change, however, was accompanied by an increase in the number of papers providing a more specific examination of the stress process such as research on recovery and the role of resources in offsetting the demands of the work environment.

JOHP was initially envisioned as an interdisciplinary journal to reflect the shared view of occupational health psychology as an interdisciplinary field. Early on it was recognized that to achieve a healthy and safe work environment, multiple disciplines had to be involved. These included psychology and its sub-disciplines (e.g., industrial and organizational psychology, clinical psychology, and human factors) as well as organizational science, public health, safety engineering, sociology, occupational medicine and occupational nursing-to name a few. This interdisciplinary approach is challenging because each discipline has different norms for the publication of empirical articles.

Further, I believe part of this challenge derives from the fact the field has not really achieved its interdisciplinary goal. We still have too many ... (continued on page 23) ...





Lois Tetrick George Mason University

The Founding of the Journal of Occupational Health Psychology James Campbell Quick, The University of Texas at Arlington



Below I provide a short history of the founding of *JOHP*. As a prelude to that, indulge me as I begin with a brief personal note to place my founding editorship in the context of my own career trajectory.

<u>A Personal Note</u>

It gives me great pleasure to reminisce about the founding of our flagship journal as it represents one important segment of my deeply satisfying career, a career that spans 33 years. While I look back upon my career with great satisfaction and no serious regrets, I have recently realized that I am turning the age at which my grandfather <u>began</u> the last 25-year segment of his 65-year career, doing pioneering work in pediatrics by applying Freud's core concepts to play therapy with children. I am the same age as my father when he <u>began</u> the last 20-year segment of his 55-year career, in his case doing pro-bono management consulting for small businesses in our hometown of Rochester, New York. While this is a look back, I very much have

my sights set on new pathways into the future.

The Work & Well-Being Project

Shortly after my brother Jonathan and I conceived the notion of preventive stress management and published our 1984 book, I connected with Steve Sauter of the National Institute of Occupational Safety and Health (NIOSH). Steve and the NIOSH team were instrumental in lifting ten occupational health disorders to the top of the list of problematic psychological disorders. This led to a collaboration between NIOSH and the American Psychological Association (APA). The first result of this collaboration was a series of international conferences, which continue today. (Work, Stress, and Health 2011: Work and Well-Being in an Economic Context will be held in Orlando, FL May 19-22.) The second result was a series of books published by the APA based on invited contributions from leaders in the field and by competitively selected papers presented at these conferences. I was pleased to be centrally involved in this foundational activity and served as a representative from the Academy of Management for several years in the 1990s as part of the bridge-building efforts to other interested professionals. These conferences and books were essential institutional initiatives in making concerns about work and well-being real and actionable. But what about the science? Yes, there were scientific papers in the books along with practitioner contributions. However, a specialty needs a scientific foundation and there is no better place to look than in the premier publisher of psychological science in the world: APA.

JOHP Conceived

Steve Sauter's passion for advancing the NIOSH collaboration with APA led to an emergent dialogue about establishing a scientific journal to anchor our discipline. All of the details are no longer quite clear to me but there are two aspects that stand out, came together, and "BANG"...we had a contract for a scientific journal. One aspect was the trialogue between Steve and his NIOSH team, Gary VandenBos from APA, and me negotiating how this would work from a very practical standpoint. Gary was clear that APA would be the owner of the journal and that the contract would be between APA and UT Arlington. That made sense to me; however, one of my challenges became garnering the essential ... (continued on page 15) ...



James Campbell Quick The University of Texas at Arlington

The NIOSH Work Organization and Stress-Related Disorders (WSD) Program

Jessica M. K. Streit, Jeannie A. S. Nigam, and Steven L. Sauter , National Institute for Occupational Safety and Health

Program Background

The National Institute for Occupational Safety and Health (NIOSH) has maintained a vigorous research program on work organization and stress since the Institute's inception in 1971. Today, NIOSH stands alone as the sole entity of the United States Federal Government charged with researching these topics.

Events in the United States Public Health Service nearly 50 years ago set the stage for the NIOSH program on work organization and stress. In 1965, a working group on occupational health convened under the National Advisory Environmental Health Committee issued a report to the Surgeon General of the Public Health Service expressing apprehension about new and unexplored threats to worker health, including changes in the organization of work. Many of the concerns identified in that report continue to be the center of attention in occupational safety and health today (e.g., the shift to a service economy, growth of information technology and knowledge work, and growth in nonstandard employment such as contractor-supplied labor). In particular, the report singled out psychological stress and its associated health effects as special concerns, stating that

"...millions of American Workers, as a direct result of their occupations, are exposed to health damage ... increasingly, from psychological stress" (U.S. Department of Health, Education and Welfare, 1966, p. 9).

Similar concerns were expressed by industry and labor in the context of Congressional hearings that led to the creation of the Occupational Safety and Health Act of 1970 (Public Law 91-596) and the creation of NTOSH in 1971 (Mason, 1992). The Act states that "the Secretary of Health and Human Services shall conduct...research.... including studies of psychological factors...: motivational and behavioral factors...; and chronic...exposures to... stresses" related to occupational safety and health (Sec 20a1, 20a4, and 20a7). Early products from the NIOSH WSD program included seminal epidemiologic studies of work organization and health, such as the University of Michigan study of job demands and health in 23 separate occupations (Caplan, Cobb, French, Van Harrison, & Pinneau, 1975),

and the Cobb and Kasl (1977) investigation of health consequences of job loss. The NIOSH WSD program

was energized in 1985 when stress was recognized by NIOSH as one of the top 10 national occupational health and safety concerns, leading to a partnership with the American Psychological Association

(APA) to advance research and practice in work organization and health under the banner of occupational health psychology (OHP: Millar, 1984; Sauter, Hurrell, Fox, Tetrick, & Barling, 1999). In the period 1990-1999, NIOSH collaborated with the APA to launch a series of initiatives to promote the newly established area of OHP. The Work, Stress, and Health conference series was founded; a program to fund graduate training in OHP at major universities was implemented; and the *Journal of Occupational Health Psychology* was founded.

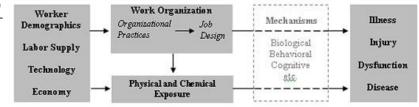
In 1996, NIOSH reorganized its research portfolio under the auspices of the National Occupational Research Agenda (NORA) that identified 20 priority research areas for the Institute, which included the Organization of Work (Rosenstock, Olenec, & Wagner, 1998). In 2006, with the onset of the second decade of NORA, NIOSH again reprioritized its research portfolio into 32 programs, which consist of eight industry sector-specific programs and 24 topically-based cross-sector programs, including the present Work Organization and Stress-Related Disorders (WSD) program.

<u>The Program Today</u> The stated mission of the NIOSH WSD program is "to protect and promote the health and safety of working people through research and development to improve the organization of work." Program activities are guided by the conceptual model of work organiza-

tion and health illustrated in the figure. The figure actually displays a somewhat expanded causal model, showing that organizational practices of concern in OHP are the products of various background forces, such as the growing global economy, changing worker demographics, the labor supply, and technological innovation. In turn, these practices affect the design of jobs and,







ultimately, worker well-being by way of stress-related mechanisms. The organization of work is seen also to affect worker safety and health by modifying workplace exposures to physical and chemical agents in the workplace.

The primary goals of the WSD program are divided into three broad categories: 1) research and surveillance; 2) intervention and technology transfer efforts; and 3) capacity building. Presently, the program includes over two dozen intramural research and development projects. These intramural projects and activities span five NIOSH divisions and are led by over two dozen researchers with expertise in areas such as psychology and psychophysiology, industrial engineering, and occupational medicine. Program projects include the following types of investigations

Epidemiologic studies to explore how changing organizational practices influence risk factors for job stress and other hazardous exposures at work.

The development of improved methods and tools for job stress research, including surveillance instruments to better understand how the organization of work is changing.

Studies to further understand how workplace stress contributes to illness, injury at work, and disease development, including study of intervening factors and laboratory-based research of underlying biological mechanisms.

Investigations of stress in understudied populations, occupations, and sectors.

Studies to better understand the socioeconomic cost and burden of job stress.

Studies to identify effective multilevel intervention strategies to prevent stress at work.

Topics of special interest within these categories include: the aging workforce, (continued on page 15) ... Figure: Causal pathways between work organization and worker safety and health



Jessica Streit NIOSH



Jeannie Nigam NIOSH

The NIOSH WSD Program (cont'd.)

shift work/long working hours, health disparities, workplace violence, traumatic stress, improving surveillance tools and research methods, occupational safety and health economics, work-life balance and integration, toolkits for workplace application, and safety climate. The WSD Program webpage provides a complete listing of all the specific activities currently housed within the portfolio: http://www.cdc.gov/ niosh/programs/workorg/.

As previously noted, the program also supports efforts to translate research and develop resources for workplace interventions to improve the organization of work as well as efforts to promote greater scientific attention to work organization within the occupational safety and health field (capacity building efforts). The program is collaborating, for example, with business partners to develop toolkits for use by practitioners to identify and remedy organizational problems at the workplace. The program also collaborates with major professional organizations in support of functions such as scientific conferences to advance research, practice, and professional development in work organization and occupational safety and health.

One of the most visible aspects of the WSD program is its collaboration with the APA and the Society for Occupational Health Psychology (SOHP) in support of the biennial Work, Stress, and Health conference series. The APA, NIOSH, and SOHP will soon convene the Ninth International Conference on Occupational Stress and Health, titled "Work, Stress, and Health 2011: Work and Well-Being in an Economic Context," at the DoubleTree Hotel in Orlando, Florida on May 19-22, 2011 (http://www.apa.org/wsh/; see also accompanying article by Julia Limanowski of NIOSH in this issue of the newsletter.).

The WSD program also supports more than a dozen extramural research projects addressing the topics of work organization and occupational safety and health, and it supports graduate training programs in OHP at four national universities—Colorado State University, Portland State University, the University of Connecticut, and the University of South Florida.

To learn more about the NIOSH WSD Program, please visit the following documents and webpages:

NIOSH WSD Program Portfolio webpage: <u>http://</u>

www.cdc.gov/niosh/programs/workorg/

NIOSH Topic Page on Stress: <u>http://www.cdc.gov/niosh/</u>

topics/stress/

- NIOSH Publication No. 2002-116: The Changing Organization of Work and the Safety and Health of Working People:
- http://www.cdc.gov/niosh/docs/2002-116/
- NIOSH Stress blog: http://www.cdc.gov/niosh/blog/ nsb120307_stress.html
- NIOSH Publication No. 2003-114d: Working with Stress (video): http://www.cdc.gov/niosh/docs/video/stress1.html
- Work, Stress, and Health 2011: Work and Well-Being in an Economic Context conference webpage: http:// www.apa.org/wsh/
- Workplace Safety and Women (CDC Podcast): http:// www2c.cdc.gov/podcasts/player.asp?f=11503

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The Founding of JOHP (cont'd.)

internal support for the university's contribution.

UT Arlington's leadership in the early 1990s became a huge blessing to me and to the initiative. After over 20 years of leadership, our president handed over the reins to Ryan Amacher, a creative economist with a passion for building things and doing deals. While an economist, Ryan selected as his Provost and Vice President for Academic Affairs a psychologist, Dalmus Taylor. Dalmus had been a leader within APA with strong, secure connections along a variety of lines. These two UT Arlington leaders provided the rock-solid cornerstone support to insure that I would be able to do what I needed to do during the six-year founding editorship. President Amacher signed off on the six-year commitment with APA and Dalmus worked closely with me on several aspects of the work. His close feedback was instrumental as I executed and implemented my own style of editorship.

A second key aspect that stood out to me was the launch timing. Once the decision was made, Steve and Gary were understandably very enthusiastic. Their enthusiasm was good--actually it was wonderful. However, they did not have to keep the boat moving once it was in the water. I realized that once we launched, every three months the editorial office would have to deliver manuscripts for publication. Where would they all come from? How could we insure that these papers were of a high quality? I was anxious and concerned. So, I asked for a two-year development period in which we would aggressively reach out to the field--to authors, to national and international collaborators, and to public policy leaders--in order to develop a pool of successfully competitive manuscripts from which to choose for the launch. After much back-and-forth in the trialogue, we were granted a developmental buffer period before going into print.

As we moved down the pathway from conception to launch, APA encouraged and supported the development of an international presence for the journal. NIOSH-inspired APA international conferences clearly were ... (continued on page 16) ...



"The NIOSH WSD program was energized in 1985 when stress was recognized by NIOSH as one of the top 10 national occupational health and safety concerns."



Steven Sauter (NIOSH) and his grandson Forrest

The Founding of JOHP (cont'd.)

aiming to make OHP an international subject. We at *JOHP* wanted to leverage that energy and reach out to scholars around the world. The 1990s was a fertile time in my career for building relationships throughout Europe, Israel, and Brazil. This was the decade when globalization took off following the collapse of the Berlin Wall, so we were swept up in that rising tide. Conferences in the UK, Switzerland, the Netherlands, Israel, and Sweden enabled us to build relationships and opened pathways. Nancy Foster was the ideal editorial office manager as she split her time between *JOHP* and the Office of the Dean. She was my "ground controller" and had such positive energy for *JOHP* that I received a range of positive feedback from around the world about her constructiveness and helpfulness. She was great, as was her successor Donna Ross, after the Dean took all of Nancy's time.

JOHP Launches

We went into print with the first issue in March of 1996. By then, the drawer was full, but not overflowing, with successfully competitive manuscripts that had come across the transom. There were a few leading scholars who tried knockoff work with us, but we did not allow it. The Editorial Board did an excellent job of reviewing and rating the papers. Several of those leading board members have remained friends and/or collaborators over the years, for which I am most thankful and blessed. However, I was not sure how far that full drawer would take us now that we were clearly under way. Ultimately, however, we never became desperate..

Associate Editor Jeff Johnson was instrumental in crafting a "Special Section" of invited papers from OHP leaders around the world that would be featured in each of the first year's four issues. Through that collaboration, I was introduced to Töres Theorell from Stockholm, Johannas Siegrist from Germany, and re-aquainted with Cary Cooper whom I had met in the late 1980s in Texas. Jeff was onto something with his leading-scholar concept, with several of the invited papers from 1996 being cited in the scholarly literature hundreds of times. In a recent joint engagement in Brazil this year, the time with Johannas gave us an opportunity to recollect and to share the current foci of our scholarly activities. This invited paper concept of Jeff's placed a leading edge on *JOHPs* first year while providing some buffer until the papers began flowing in a stronger stream. The drawer did drain, but we never got to the bottom. The takeoff on a steady flow of papers picked up before that happened.

Associate Editor Chaya Piotrkowski was a great partner too. I was fascinated by the sex bias I saw emerging on a number of sexual harassment manuscripts, with virtually all of the male reviewers rejecting the papers and the female reviewers being appropriately critical but adding the caveat that "this is an important issue to publish." In these cases I felt that consultation was in order and Chaya provided that well. What we finally did was select a small set of the best sexual harassment papers and put a spotlight on them in a special section that we co-edited.

Two Transitions

Reading history, while of course educational, is fascinating to me. I found the history of APA editorships and the advent of systematic transition particularly interesting. As I recollect, the early years of psychology in America were ones in which various leaders would develop and then control journals, often publishing friends and rejecting opponents. These dynamics fueled plenty of scientific warfare but were not conducive to collegial collaborations and certainly not "Fair to All Concerned." So, regulation! By internalizing the journals and insuring regular, systematic editorial rotations, APA established a significantly more professional approach to scientific journal publication. I was impressed. Thus, I knew that my time would come to transition my editorship, and I was pleased that it went into the hands of Julian Barling.

However, in my case the transition was not complete and had a second twist. During 1998 and 1999, I received from several academic publishers invitations to take on the editorship of a handbook in the field of occupational health psychology. After receiving several of these invitations, which I politely rejected, I told Gary VandenBos what was coming at me. At that juncture, Gary wondered if an APA Handbook of OHP would not be a good idea. While an intriguing thought, I had just completed six years of editorial work for APA and the task seemed daunting. As I was talking with Lois Tetrick about my quandary, she piped up about her own emerging interest in such a handbook. Well, two is usually better than one and in our case for me, significantly better. The second transition thus materialized into the Handbook of Occupational Health Psychology, now out in its Second Edition.

Time Well Spent

Every major career task we face has its pros and cons, challenges and pitfalls, problems and opportunities. What I have now is the advantage of hindsight, which I did not have in the midst of my editorship. I am reminded of my 93-year-old grandfather's reflections on work-life balance. He observed that he need not have worked quite as hard as he did at age 33 to be as successful as he was. Easy for him to say at 93! In my own case, the look back gives me the perspective to appreciate the opportunity that APA and NIOSH afforded me to serve as editor. My years were well spent, and I hope too for all concerned.



"We went into print with the first issue in March of 1996. By then, the drawer was full, but not overflowing, with successfully competitive manuscripts that had come across the transom."

Involuntary Job Loss and Health: My Path to Job Loss Research

William T. Gallo

Hunter College of the City University of New York

In 1998, when I became a doctoral candidate in economics at the University of Connecticut, I convened the requisite meeting with my dissertation advisors to discuss my research topic. Entering the meeting, I planned to write two papers on the economic consequences of involuntary job loss among workers nearing retirement, a group that had been understudied. One piece would deal with unemployment duration; the other would explore earnings losses for displaced workers who found new jobs. I'd use secondary data from the Health and Retirement Survey (HRS) and the standard statistical tools of an economist, while keeping the theory fairly light. In this way, I could be done in a year perhaps sooner.

I was, however, in for a surprise. At the meeting, my major advisor, Prof. Dennis Heffley, suggested that I write a *third* paper, one that would assess potential health effects. He reasoned that this additional piece—which touched the areas of occupational health, social epidemiology, and public health—might expand my opportunities for employment once I was awarded the degree because the job market for new PhD economists was not particularly good at the time.

I balked at the idea, having set my mind to making my mark as a labor economist and completing the doctorate quickly. But in the end, I agreed. Moreover, I quickly found that there was a fairly long gap in the intensive study of the health impact of job loss, which might have created a niche for me. Thus, while some really great work was still taking place, the frequency at which papers on this topic were published was low. In particular, Yale's Stan Kasl, whose research on automobile plant closings in Michigan arguably comprised the seminal work in the field, had not published a paper in this area in over a decade. And most importantly, no one had looked exclusively at workers over 50, despite the fact that the Bureau of Labor Statistics (BLS) had been fairly consistently documenting long unemployment spells and poor prospects for reasonable reemployment for these workers.

Another bend in the road

With this as a backdrop, I set to work on the dissertation, having decided to tackle the health paper first, with the support of Prof. Heffley, a solid health economist with a great intellect and first-rate research instincts. But before I even got through an expanded reading of the literature, Dennis took ill, and required a fairly long period of recuperation. (We graduate students were all quite certain that our constant demands on Dennis, surely one of academia's most accommodating advisors, had made him sick!) In any case, in his absence, I needed a mentor. I had taken a semester of epidemiology and had done a one-year fellowship in gerontology, providing me with some of the knowledge of measurement and statistical techniques that could be useful in developing this paper. But it really wasn't enough.

I decided to contact Betsy Bradley, then an assistant professor in the Department of Epidemiology and Public Health at Yale. Betsy and I had met at a conference a year or so before, where we found that we had a common background (health economics) and research interests. With a little prodding, Betsy graciously agreed to guide the health paper, and if our work looked promising, to request Stan Kasl's involvement. Stan ultimately did join our team, as senior scientist, providing oversight for the dissertation research.

Arrival

After I completed the doctorate at UCONN in 1999, Stan and Betsy brought me to Yale to do a postdoctoral fellowship in mental health epidemiology, where I also received training in social and chronic disease epidemiology and the epidemiology of aging. Once at Yale, the publication of the dissertation research, which documented effects of latecareer job loss on physical functioning and depressive symptoms, marked our team's place in this important field. It also led to several NIH grants, which funded my Yale faculty position and allowed our group to assess longer-term effects and other outcomes, which I'll elaborate on below. Moreover, it permitted the involvement, on some level, of many of Yale's premier researchers in occupational health, medicine, gerontology, and health economics—folks such as Mark Cullen, Harlan Krumholz, Mary Tinetti, Terri Fried, and Jody Sindelar.

Why older workers?

From the beginning of the dissertation planning, we decided that we'd isolate and study individuals who were within a decade of retirement with early Social Security benefits. This group was of interest to us for several reasons. First, it corresponded roughly to the common BLS age category of the 50+ worker. Therefore, we could use the aggregate statistics from the Feds to bolster the importance of our investigations. Second, it represented a cohort that had spent a considerable portion of its working life in a U.S. labor market marked by high job security and a low threat of layoffs or business closings.

The way we saw it, this was the last generation of "lifers" in the U.S. labor market—the last employment cohort to enter the work world with an implicit contract to remain with the same employer until retirement. For this reason and others, it was also a cohort that was more likely than later ones to have skills that were not easily transferred to another employer. Third, we knew that individuals in this age range/cohort were amassing a good portion of their retirement savings in their 50s. So we hypothesized that latent structural changes in the macroeconomy and interruption to savings associated with the loss of a job could be financially and psychologically detrimental. (I'd be remiss if I did not mention a fourth motivation for our selection of this particular age group to study: the HRS data fit perfectly. The original HRS cohort was age 51 and 61 at the Study's 1992 baseline.)

Pilot work and beyond

As I mentioned earlier, the dissertation paper on health effects, which was published in the *Journal of Gerontology: Social Sciences* in 2000, established that up to two years after separation, older job losers had higher levels of depressive symptoms and poorer physical functioning than similar workers who were continuously employed. Though not clearly causal, this relationship was supported by additional findings. In fact, one of ... (continued on page 20) ...





William T. Gallo Hunter College of the City University of New York

"I quickly found that there was a fairly long gap in the intensive study of the health impact of job loss, which might have created a niche for me."

A Sneak Peek at the WSH 2011 Program

Julia Limanowski and Jeannie A. S. Nigam, National Institute of Occupational Safety and Health

(on behalf of the WSH 2011 Conference Planning Committee)

As reported in the previous issue of the Newsletter (<u>http://</u>

sohp.psy.uconn.edu/

SOHPNewsletterV8June2010.pdf), plans are underway for the next Work, Stress, and Health conference to be held May 19-22, 2011 in Orlando, Florida. American Psychological Association (APA), the National Institute for Occupational Safety and Health (NIOSH) and the Society for Occupational Health Psychology (SOHP) hope that you will plan to join us in Orlando. To pique your interest and facilitate your planning, please read on to learn more about what the conference planning committee has scheduled thus far. About the 2011 Conference Theme

The Work, Stress, and Health (WSH) Conference series is designed to address the changing nature of work and the implications of these changes for the health, safety, and well-being of workers. The theme of the 2011 WSH conference is *Work and Well-Being in* an Economic Context, giving special attention to economic aspects of job stress. This theme is timely given the recent worldwide economic turmoil. In keeping with this theme, we are especially interested in receiving submissions that address the following issues:

Influence of the economy on management and employment practices, the organization of work, job security, and income disparity.

Economic consequences of stressful working conditions and stress-related disorders for employers, employees, and society at large, including costs of illness, injury, disability, and organizational productivity and performance losses.

Economics of stress prevention and workplace interventions, including economic barriers to their implementation.

We invite researchers, business and labor representatives, and medical and social science professionals with interests in occupational safety and health to submit proposals for poster presentations, papers, and symposia that address these or any of the conference topics (for complete listing of topics, see Call for Papers at <u>http://</u> www.apa.org/wsh/). As a reminder, the deadline for abstract submissions is October 15, 2010.

Conference Events Preconference Workshops. * Several full- and half-day workshops will be offered on May 19, 2011. Preconference workshops offer an excellent opportunity to sharpen your occupational health knowledge and skills! It is anticipated that most, if not all, workshops will be eligible for continuing education credits. We have a great lineup of presenters who will cover the following topics:

The Aging Workforce. James Grosch (NIOSH) & Janet Barnes-Farrell (University of Connecticut);

Stress Interventions and Process Evaluation. Karina Nielsen (National Research Centre for the Working Environment, Denmark) & Raymond Randall (University of Leicester, UK);

Practical Approaches to Health Promotion. University faculty from NIOSH-funded WorkLife Centers; Intervention Evaluation & Methodol-

ogy. Ted Scharf (NIOSH). *Opening Session (May 19, 2011).* We are excited to announce that Sean Nicholson, associate professor in the Department of Policy Analysis and Management (PAM) at Cornell University and a Research Associate at the National Bureau of Economic Research, will deliver the conference opening address. The focus of his address will be on the economic burden of occupational illness and injury, including disorders associated with stress at work.

Tutorials. * In addition to the preconference workshops, tutorials will be offered as part of the conference program. These free 60-minute seminars are scheduled to occur during lunch on May 20 and 21, and are designed to update and educate audience members on the current state of science and practice on the following topics:

Career Adaptability in Turbulent Economic Times. Fred Leong (Michigan State University);

Underemployment & Job Insecurity. Tahira Probst (Washington State University Vancouver);

Health & Productivity Management. Sean Nicholson (Cornell University);

Workplace Bullying & Incivility. Stale Einarsen (University of Bergen, Norway).

Plenary Session. * A special plenary session will be held on May 20, 2011 and will feature representatives of international organizations such as the World Bank, Inter-American Development Bank, Integrated Benefits Institute, and other conference partners. The focus of the discussion will be the impact of globalization and the business cycle on working conditions and workrelated stress.

Junior Faculty Events. * During the

conference, professional development sessions addressing topics such as early career development; identifying funding sources, writing grant proposals, and gaining organizational support for research will be addressed.

Student Activities.* In 2011, the conference will feature two events designed specifically for student attendees. First, during one of the concurrent sessions, a panel of graduate students will share their experiences and provide

advice on how to get involved in research projects, how to take on roles with more responsibility, and how to successfully collaborate with other students and faculty. Each of the panelists will give a short presentation on their successes and the remaining time will be open for questions and discussion. Second, this panel presentation will be followed by a social networking event designed to promote interactions among students and faculty.

Scholarships.* Scholarships will again be offered to help presenters cover expenses associated with attending the conference. Please check the website for criteria and application information.

The conference will be held at the DoubleTree Hotel At The Entrance to Universal Orlando (http:// www.doubletreeorlando.com/). As its name implies, the hotel is conveniently located just steps away from the Universal Orlando Resort and other exciting attractions and recreational venues. All of the guestrooms offer panoramic views of Universal Orlando and beyond, as well as an array of lifestyle amenities, such as high-speed internet, dualline telephones with voicemail, safes, Sweet Dreams bedding, flat-screen cable TV, MP3 alarm clocks, coffee service, and mini refrigerators. In addition, the hotel offers several restaurants and lounges with dining options ranging from gourmet cuisine to your favorite comfort foods.

Recreational activities on-site include a fully-equipped fitness center, outdoor Olympic-size ... (continued on page 21) ...



MAY 19-22

The 9th International

Occupational Stress

Conference on

Orlando, Florida

and Health

Research Resource

The Use of Implicit Measures in OHP Research Nathan A. Bowling

Department of Psychology, Wright State University

Research in occupational health psychology (OHP) has generally relied on participant self-reports (i.e., explicit measures) to assess such variables as attitudes, beliefs, emotional responses, and personality traits. Although self-report is a convenient and flexible approach that often yields valuable data, OHP research could be enhanced via the use of implicit measurement. In the current article I define implicit measurement, discuss several specific implicit measurement approaches, and consider examples of how implicit measurement could be used in OHP research.

What is implicit measurement?

Implicit processes occur outside of one's awareness and, thus, are not subject to one's conscious control (see Johnson, Tolentino, Rodopman, & Cho, 2010). In one illustration of such processes, Bargh, Chen, and Burrows (1996) found that college-aged research participants walked more slowly after being subtly primed with words associated with the elderly (e.g., "Florida," "wrinkle," "bingo").

The study of implicit processes is important for several reasons. First, implicit measures of a given construct are not redundant with explicit measures of the same construct. For this reason, implicit and explicit measures may each yield unique effects on key criteria. Johnson et al. (2010) found that implicit measures of positive affectivity (PA) and negative affectivity (NA) were related to job performance after controlling for the effects of explicit PA and NA. Furthermore, to the extent that they represent different constructs, implicit and explicit processes are likely to have different sets of antecedents and consequences. Another reason for using implicit measures is that they may be more immune to response distortion (i.e., faking) than explicit measures. Indeed, implicit processes by definition are uncontrolled, thus making intentional distortion of responses difficult. For this reason, implicit measures may be well suited for assessing socially sensitive variables (e.g., aggression, racial attitudes, or sexual attitudes) and they may be useful in high -stakes contexts, such as employee selection.

Even if participants are willing to respond honestly to an explicit measure, they may be unable to do so. This may occur, for example, when respondents have little conscious insight into their own experiences. Implicit measures avoid this problem because they assess processes that are outside one's awareness. Finally, the use of implicit measures might be helpful in combating common-method variance (CMV). That is, a relationship between a variable assessed with an implicit measure and a second variable assessed with an explicit measure may be less susceptible to CMV than a relationship between two variables that are both assessed with explicit measures.

Examples of implicit measures

Given their potential advantages, it should be no surprise that several different types of implicit measures exist. Although many of these measures have been used extensively in social and personality psychology, they have received little attention from applied psychologists. In the current section, I review some of these implicit measures. Note that this is not an exhaustive list. For a review of additional implicit measures, I recommend the recent chapter by Vargas, Sekaguaptewa, and von Hippel (2007).

Implicit Association Test. The Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) is perhaps the most popular implicit measure used in recent social psychological research. IATs assess the favorability of respondents' implicit attitudes toward one target relative to the

favorability of their attitudes toward a second target. IATs, which are typically administered via computer, present participants with pictures or words representing two competing attitude objects (e.g., African-Americans vs. Caucasians). Prejudice is difficult to study because respondents do not want to appear prejudiced to the researcher conducting an interview or distributing a survey. IATs can be helpful in studying prejudice in the workplace and elsewhere. With the help of IATs, participants could be asked to press a right-hand key when pictures or words from one target category are presented (e.g., photographs of African-Americans) and a left-hand key when the pictures of words from the other target category are presented (e.g., photographs of Caucasians). In addition, participants are also asked to sort positive words (e.g., health) and negative words (e.g., disease) by pressing either the right-hand or left-hand key. For example, they may be asked to press the right-hand key when shown pictures of African-Americans or positive words and the left-hand key when shown pictures of Caucasians or negative words. In a subsequent trial, the attitude object that was initially paired with positive words is paired with negative words and the attitude object that was initially paired with negative words is paired with positive words. The assumption of the IAT is that participants' reaction times will be fastest when a target toward which they have a positive attitude is paired with positive words and a target toward which they have a negative attitude is paired with negative words. To complete an on-line IAT, see the Project Implicit webpage: https://implicit.harvard.edu/ implicit/

Affect Misattribution Procedure. The Affective Misattribution Procedure (AMP; Payne, Cheng, Govorun, & Stewart, 2005) uses responses to ambiguous stimuli to assess implicit attitudes. In this procedure, participants are first shown a target photograph that depicts the attitude object. The target photograph is withdrawn and an ambiguous photograph is then presented. Participants are asked to ignore the target photographs and instead provide a rating of their attitude toward the ambiguous stimulus. The expectation is that any emotions experienced while viewing the target stimuli will "spill over" onto participants' evaluations of the ambiguous stimulus. In one example, Payne et al. showed American college students target photographs of U.S. presidential candidates and then showed them ambiguous photographs (e.g., Chinese characters). As hypothesized, the AMP measure was significantly related to explicit attitudes toward the presidential candidates.

Word Completion Task. In the Word Completion Task (WCT), respondents are given some of the letters needed to spell a word and are asked to complete the word by filling in letters in one or more blank spaces that have been provided (see Johnson et al., 2010). For example, one such item used by Johnson et al. to assess NA is:

FE__

In this example, spelling the word "FEAR" is coded as a high -NA response, while the words "FEEL" or "FEED" are coded as low-NA responses. This approach assumes that negative words are chronically assessable in the memories of high-NA individuals, and thus they readily perceive negative words within neutral stimuli.

Word Similarity Task. The Word Similarity Task (WST; Anderson, Carnagey, & Eubanks, 2003) provides participants with a series of word pairs and asks them to indicate the degree of similarity ... (continued on page 21) ...





Nathan A. Bowling Wright State University

"Implicit measures may be well suited for assessing socially sensitive variables and they may be useful in high-stakes contexts, such as employee selection."

Involuntary Job Loss and Health (cont'd.)

our analyses suggested that among the job losers, those who became reemployed showed "recovery" in both outcomes relative to those who remained unemployed until the study endpoint, a finding partially replicated by Bidisha Mandal of Washington State University with more HRS data and a more sophisticated statistical approach in a later paper on depression.

In any case, with the dissertation findings marking our territory, we began to chart further papers. We looked into changes in alcohol consumption, presumably a self-medicating response to the stress of job loss. While we reported no statistically significant changes in a 2001 paper, we now have some evidence (from finite mixture models) that there exists a subgroup whose alcohol use does increase after job loss. A National Bureau of Economic Research report documents this new finding, with a peer-reviewed publication on the way (I hope). In the same vein, we found increases in postdisplacement smoking.

Because the depressive symptoms appeared to be extremely robust (we even discovered elevated depression among job losers with lower wealth at 4- and 6year follow-up), we decided to look at depression in a more nuanced fashion. One way was to determine whether repeated exposure to job loss resulted in a kind of immunity. Said another way, we asked: Could it be that each successive job loss affected job losers less acutely? Did job losers develop a tolerance to the experience? Our results suggested so. After a huge spike in depressive symptoms associated with a first job loss, a second loss merely resulted in a modest increase. How about the third and fourth? Our findings suggested a return to the original, pre-displacement level of depressive symptoms. Another way was to see whether a layoff, a more personal experience that is likely to precipitate self-blame, elicited a greater emotional health response than a business closing. In a paper published in 2008, we tested this hypothesis, finding that among men, but not women, layoffs did indeed have more severe consequences for depression than business closings. We speculated that men's stronger commitment to work role and labor force attachment to the labor force were likely responsible for our sex-specific finding.

Causality?

While I was a newly minted PhD back in 1999, I supervised a master's paper that took a first crack at the question of whether late-career job loss was associated with such stress-related health events as heart attack and stroke. The results of this paper were pretty persuasive, with greatly expanded odds associated with job loss. Yet the methodology used left me wondering which came first-the job loss or the adverse event? Stan, Betsy, and I, along with a few of our colleagues, began to think about replicating the analysis in 2003. What if we could make certain that we got the ordering of the job loss and health event correct? What if we made certain to ascribe time prior to job loss to the "unexposed" group? Well, we got our answer. In two such analyses, a 6-year follow-up and a 10-year replication, we discovered that the results generated by my master's student held up. Older job losers had significantly increased risk of heart attack and stroke.

Where do we go from here? As I see it there are currently two fronts in job loss research. One identifies subgroups that are differentially adversely affected by the job loss experience; the other isolates causal pathways between job loss and adverse health. From the looks of it, both fronts will require big empirical guns. Traditional subgroup analysis is simply not powerful enough to capture the complex interplay of characteristics that define the most vulnerable subpopulations. And causal sequences defined only by observable patterns will probably miss the subtle combination of labor force, health, and contextual factors that lead to poor outcomes. The work on latent growth mixture models by some terrific young methodologists, like Mo Wang at the University of Maryland, will likely provide a blueprint for how we move ahead in this field.

Selected Readings

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A Sneak Peek at the WSH 2011 Program (cont'd.)

heated swimming pool and whirlpool spa. Golf courses, fishing lakes, and tennis courts are also located nearby. In addition, the hotel provides complimentary shuttle transportation to major tourist destinations, including Universal Orlando, SeaWorld, Discovery Cove, and Universal CityWalk. You can also rent a car in the hotel's lobby. The hotel is family-friendly, featuring comfortable surroundings and many family-inspired amenities, such as children's menus and activities, babysitting services, and fun family getaway backages.

And remember, warm chocolate-chip cookies are always served at check-in!

Important Conference Dates and Deadlines:

October 15, 2010 Proposal submission deadline

January 5, 2011Full manuscript submission deadline for both: Best Intervention & Best Student Research CompetitionsEarly 2011Conference registration & hotel reservation information made available on the websiteMarch 15, 2011Early Career Achievement Award nomination materials due

April 10, 2011 Early registration rates expire

*Please review the conference website (<u>http://www.apa.org/wsh/</u>) frequently as updates and additional details will be posted as they become available. We hope to see you in sunny Orlando!

Implicit Measures in OHP (cont'd.)

between the two words in each pair. Within each pair, one word is unambiguously representative of the construct being assessed while the second word is more ambiguous in meaning. An example item from the Anderson et al. implicit aggression measure asks participants to judge the similarity of the words "hurt" and "stick." Participants with aggressive proclivities are likely to judge that "stick" (an ambiguously aggressive word) is more similar to "hurt" (an unambiguously aggressive word) than are participants who lack aggressive tendencies.

Applications of implicit measures to OHP research

Implicit measures have several potential applications to OHP research. In the current section I discuss how implicit measures could be used by OHP researchers to assess employee personality, job attitudes, and affective responses.

Employee Personality. Several personality traits have been examined in the OHP literature, including positive affectivity (PA) and negative affectivity (NA), self-esteem, and trait aggression, to name a few. Each of these personality traits could be assessed using implicit measures. For instance, PA and NA have been assessed using WCTs (Johnson et al., 2010), selfesteem has been assessed using IATs (Greenwald & Farnham, 2000), and aggression may be assessed using WCTs and CSTs (Anderson et al., 2003).

Job Attitudes. Job attitudes play an important role in many OHP models. Job satisfaction and organizational commitment, for example, are often examined as outcomes of work stressors. Other research has linked safety-related attitudes to workplace accidents (Christian, Bradley, Wallace, & Burke, 2009). IATs are especially suited to assess implicit attitudes. Indeed, IATs have already been developed to measure implicit job satisfaction (Haines & Sumner, 2006). Although they have yet to attract the attention of occupational health psychologists, AMPs could also be used to assess each of the above attitudes. Researchers interested in employee attitudes toward using safety equipment, for example, could ask workers to report their evaluations of neutral stimuli after first showing them photographs of safety equipment (e.g., hardhats, fire extinguishers, and safety goggles). Those who have positive implicit attitudes toward safe behaviors would likely judge the neutral stimuli more favorably than would those who have negative implicit attitudes.

Affective Responses. Affective responses commonly examined in OHP research include anxiety, depression, and burnout. WCTs could be easily adapted to measure these responses. Indeed, WCTs already exist to assess trait emotions (e.g., PA and NA; Johnson et al., 2010). With some modification, these measures could be adapted to assess emotional states. *Summary*

OHP research has been dominated by the use of explicit measures. Although these measures can be useful in many situations, their widespread use overlooks the potentially important role played by implicit processes. In the current article I have reviewed some of the implicit measures that are available to researchers and have discussed how they could be adapted to OHP research.

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Multiple Mediation in OHP (cont'd.)

INDIRECT y = dv/x = iv/m = mlist covlist/c = cov/ boot = z/conf = ci/normal = n/contrast = t/percent = p/ bc = b/bca = d .

In this syntax code snippet the absolutely required elements you must provide to use this macro with your data are:

dv = dependent variable name

iv = independent variable name

mlist = list of one or more mediator variables' names through which your iv \rightarrow dv

You may adjust the other parameters by providing additional details, including:

covlist = list of the variables names for your covariates **cov** is the actual number of covariates you insert in covlist (default is 0)

z = number of bootstrap resamples desired in increments of 1000

via Facebook postings, Preacher has recommended at least 5000 for manuscript/presentation results, but for first-pass analyses, the default of 1000 may be sufficient (and save computing time)

ci = desired confidence for confidence intervals (1 to 99; default is 95%)

n set to 1 to print normal theory standard errors for indirect effects (default is 0)

t set to 1 to do all possible pairwise contrasts between indirect effects (default is 0; might

as well see the contrasts for yourself) **p** set to 1 to print *percentile* confidence inter-

vals **b** set to 1 for *bias-corrected* confidence intervals (recommended)

d set to 0 to disable printing of *bias*-

corrected and adjusted confidence intervals. Here's an example Syntax from one of my

student's projects:

INDIRECT y = jsattot/x = neurottot/m = ipctot qwtot rolectot roleatot Age Wrkhrs /c = 2/boot = 5000/conf = 95/contrast = 1/percent = 1/bc = 1/bca = 0.

With this code we tested the indirect effects of trait neuroticism on job satisfaction through four stressor mediators (ipctot, qwtot, rolectot, and roleatot), controlling for two covariates (age and wrkhrs). The portion of the syntax that reads /c=2 indicates that the last two variables in the preceding list (Age and Wrkhrs) are to be included as covariates and not mediators. In this particular analysis, 5000 bootstrapped samples were run, and 95% confidence intervals (CI) were requested, in both percentile and bias-corrected forms (the latter is the recommended one to focus on when interpreting the results).

Wait a Minute -- Confidence Intervals?

Yes, the output from this analysis does not provide clear *p*-values \dot{a} / a SPSS, so you need to be comfortable with confidence intervals (you know it is time for this anyway). It is true that null hypothesis testing is still dominant for most social science research, but hunting for p < a tells us little beyond whether our estimates are likely due to error or something potentially more meaningful. Confidence intervals help us say more about the accuracy and/or quality of our estimates. Briefly, remember that: (a) a 95% CI for

a particular effect indicates that if we collected 100 similar additional samples and recalculated this effect, 95 of these recalculated effects would fall within the bounds of our 95% CI (Field, 2009); (b) a narrower CI indicates more accurate estimates; and (c) if a CI does not include/span 0, you can infer statistical significance at p < a.

Summarization & Presentation

There is very little published guidance on how to properly summarize and display the results of multiple mediation analyses. Here are some recommendations and examples for you to mimic.

In text

Discuss your findings in the text, but summarize your statistical output with a combination of tables and figures (more efficient). An example text summary statement might read something like: "The total indirect effect between X and Y was -2.00, suggesting that as X increases by one unit, Y decreases by -2.00 units through X's effect on M, which in turn affects Y."

In tables

Report point estimates and bias-corrected 95% or 99% confidence intervals for each estimate.

Report overall R^2 for the model.

In figures

Illustrate the main model, showing the point estimates for the various paths. See Figure 3 for an example.

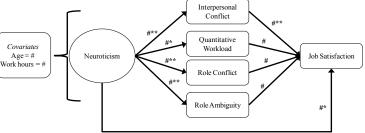


Figure 3. Example multiple mediation summary figure

Also, check out these published example papers: Danaher, B. G., Smolkowski, K., Seeley, J. R., & Severson, H. H. (2008). Mediators of a successful web-based smokeless tobacco sensation program. *Addiction, 103*, 1706-1712. DOI: 10.1111/j.1360-0443.2008.02295.x.

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Conclusion

Although the causal steps approach to mediation can be helpful in conceptualizing mediational models, this method is inappropriate for testing more complex mediational models that involve multiple mediators. Preacher and Hayes's (2008) approach to multiple mediation allows researchers to estimate the total indirect effect of X on Y(through a set of M) and test specific hypotheses regarding the role of specific ...(continued on page 23) ...



"Discuss your findings in the text, but summarize your statistical output with a combination of tables and figures."

Multiple Mediation in OHP (cont'd.)

mediators and their relative influence in the overall model. The ability to test multiple mediators simultaneously within SPSS opens many avenues for researchers and practitioners to explore and conveys several important benefits including the ability to: (1) test whether an entire set of potential mediators plays a role (from an overall effect perspective), (2) establish the relative impact of specific mediators in a set, and (3) include multiple mediators into a single model reducing chances that your findings will be biased by missing variables or factors.

Recommended Resources and References

http://quantpsy.org

Facebook: Statistical Mediation and Moderation Analysis Group [join through the http://quantpsy.org website] Special issue Organizational Research Methods, April 2008

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Reflections on Editing JOHP (cont'd.)

scholars, and practitioners for that matter, working within their own disciplines rather than working on an interdisciplinary team. Admittedly, having "psychology" in our journal's title, being published by the American Psychological Association, and using APA style doesn't necessarily entice people from disciplines other than psychology to submit manuscripts. I ask that all of you who read SOHP's newsletter be ambassadors for *JOHP* to your colleagues and acquaintances.

As I write this note, the October issue of *JOHP* is moving into production. This is the last issue for me and my editorial team of Tammy Allen, Peter Chen, and Dov Zohar, the Editorial Board, and the many reviewers who have contributed their time and expertise. I appreciate all the support I've received as editor of *JOHP* and appreciate all the new friendships I've made that were initiated through *JOHP* in some manner or other. *JOHP* thrives because of everyone's contributions, especially from the authors who submit their work to the journal-after all, without quality manuscripts no journal can thrive. I encourage you to continue to support *JOHP* and its new editorial team headed by Joe Hurrell, the incoming editor, who will take the reins in January 2011.



Thank you for reading this issue of the Society for Occupational Health Psychology Newsletter!

Society for Occupational Health Psychology

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ABOUT SOHP

The Society for Occupational Health Psychology is a non-profit organization with the purpose of engaging in activities to instruct the public on subjects useful to the individual and beneficial to the community. These efforts are achieved by (1) obtaining and disseminating to the public factual information regarding occupational health psychology through the promotion and encouragement of psychological research on significant theoretical and practical questions relating to occupational health and (2) promoting and encouraging the application of the findings of such psychological research to the problems of the workplace.

If you are interested in becoming a member of SOHP please visit our website at <u>http://www.sohp-online.org</u>.

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